

DAVID Y. IGE
GOVERNOR OF
HAWAII



FILE COPY
AUG 08 2018

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAIOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 26, 2018

Mr. Scott Glenn
Office of Environmental Quality Control
State of Hawai'i
235 S. Beretania Street, Room 702
Honolulu, Hawaii 96813

RECEIVED
18 JUL 26 P 3:20
OFC. OF ENVIRONMENTAL
QUALITY CONTROL

Re: HRS Chapter 343, Final Environmental Assessment, Notice of Determination
Project: Issuance of Commercial Aquarium Permits for the Island of Hawai'i
Applicant: Pet Industry Joint Advisory Council (PIJAC)
Applicant Contact: Jim Lynch, KL Gates LLP, 206-370-6587
Approving Agency: Department of Land and Natural Resources
Location: Throughout the near shore region (to depths of 100 fathoms) of the island of Hawai'i except in those areas already designated as no collection areas such as Fish Replenishment Areas.
Proposal: Issuance of Commercial Aquarium Permits ensuring lawful, responsible, and sustainable commercial collection of various aquarium fish species from nearshore habitats pursuant to Aquarium Fishing Permits issued under HRS §188-31

Dear Mr. Glenn,

Attached and incorporated by reference is the Final Environmental Assessment prepared by the Applicant for the Project. Based on the significance criteria outlined in Title 11, Chapter 200, Hawaii Administrative Rules, we have determined that the project may have a significant impact on the environment and therefore the preparation of an Environmental Impact Statement is required. Further analysis is necessary on the following significance criteria under HAR §11-200-12 for the issuance of Hawai'i aquarium permits:

- (1) The take of aquarium fish as an irrevocable commitment to loss or destruction of natural or cultural resources. The take of individual fish itself is loss or destruction of natural resources; the sustainability question is whether the annual take of cumulative numbers of fish as a percentage of estimated population results in irrevocable loss or destruction of populations of fish;

- (2) The manner in which the take of aquarium fish curtails the uses of the environment, including aquatic invasive algae control, the tourism industry, and the overall integrity of diverse aquatic ecosystems;
- (3) The extent to which the take of aquarium fish conflicts with the state's long-term environmental goals;
- (4) The impact of the take of aquarium fish on cultural practices in the state; and
- (8) The cumulative effect of the commercial take of aquarium fish using fine mesh nets when combined with the effects of:
 - (a) the commercial take of aquarium fish by other legal methods;
 - (b) the take of aquarium fish for recreational purposes; and
 - (c) the commercial and non-commercial take of aquarium fish species for consumption as food, particularly including Achilles Tang and kole.

It is also necessary to analyze the potential impacts under the no action alternative resulting from non-issuance of aquarium permits, including the increased take of larger, reproductively mature aquarium fish in East Hawai'i using legal mesh nets.

The FEA identifies the scope of analysis as one year and states that an EA with updated data and analysis would need to be completed on an annual basis. This improperly segments the analysis which must include the long-term and cumulative impacts over time of aquarium collection.

There is no statistical analysis of population growth compared to the life span of each fish and the number of years to and size of first reproduction against which this annual proposed take can be measured for purposes of estimating sustainable take.

With regard to proposed levels of sustainable catch, using "5% to 25%" annual take of estimated populations as proposed in several research papers, we note that 5% to 25% is a wide range, and the precautionary principle calls for applying the lowest estimated percentage of sustainable take in the absence of scientific certainty.

We also note that there are no bag limits for most species, and that the fishery as currently regulated does not limit the number of permits, so that the annual take as a percentage of estimated population could rise significantly. Alternatives of overall annual take limits, a limited entry aquarium fishery program, and restrictions including full moratoria on the take of herbivores, species of special concern, and species evidencing severe population declines have not been proposed or analyzed.

The FEA asserts that certain types of fish such as Psychedelic Wrasse, Tinker's Butterflyfish, and Fisher's Angelfish inhabit waters deeper than the CREP monitoring studied, resulting in

populations being underestimated and thus the annual take as a percentage of estimated population being overestimated.

In addition, we note the proposed alternatives for reduction in bag limits for Achilles Tang, but do not see a scientific basis for concluding that the proposed reduction would be sufficient to sustain the population.

Cultural impacts of aquarium fishing need significantly more analysis than provided in the FEA. The OEQC guidelines should be followed for assessing cultural impacts, including consulting with traditional cultural practitioners and other knowledgeable informants and sources about cultural resources, cultural practices, and the proposed action's potential impacts. Traditional Hawaiian practices and subsistence uses, local place-based and life-cycle knowledge, and traditional Hawaiian cultural significance of each type of aquarium fish taken should be reviewed. The indirect impact of modern technologies for highly efficient catch methods on traditional harvest capabilities should be included in the analysis.

Enforcement and compliance needs and challenges are key factors in the effectiveness of fisheries management, and should be analyzed as part of the environmental impact statement.

We appreciate that as an applicant action, the applicant can propose but not ensure regulations aimed at protecting and restoring populations of aquarium fish. We are interested in proposals for self-regulation by aquarium permit holders which could be incorporated into permit conditions even in the absence of or prior to establishing other regulations to accomplish the same purposes.

Overall, we appreciate that certain alternatives have been proposed, but believe they are more appropriately proposed as mitigation measures in an environmental impact statement to mitigate potential environmental impacts, rather than as alternatives in an environmental assessment which, if implemented, might result in a finding of no significant impact. The Department of Land and Natural Resources is obligated to ensure full analysis under HRS Chapter 343 of potential environmental impacts of its actions in issuing aquarium permits. We believe this is most appropriate in an environmental impact statement.

Based on the significance criteria outlined in Title 11, Chapter 200, Hawai'i Administrative Rules, we have determined that the preparation of an Environmental Impact Statement is required.

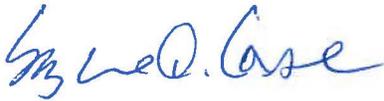
Please publish this FEA-EISPN in the next issue of the Office of Environmental Quality Control (OEQC) "Environmental Notice". We understand that publication in the Environmental Notice will initiate a 30-day public consultation period for parties to comment on the action and to request to become consulted parties in the preparation of the draft environmental impact statement.

Mr. Scott Glenn
Office of Environmental Quality Control
July 26, 2018
Page 4 of 4

We have enclosed one hard copy of the FEA-EISPN, as well as three Adobe Acrobat PDF copies on compact disc. We have also attached a completed OEQC publication form and Project summary, and we will submit the same publication form and Project summary via electronic mail to your office.

Please contact David Sakoda, State of Hawaii, Department of Land and Natural Resources, Division of Aquatic Resources, at (808)587-0104, david.sakoda@hawaii.gov, with any questions.

Sincerely,



Suzanne D. Case
Chair
Department of Land and Natural Resources
State of Hawai'i

APPLICANT PUBLICATION FORM

Project Name:	Issuance of Commercial Aquarium Permits for the Island of Hawai'i
Project Short Name:	FEA Hawai'i Commercial Aquarium Permits
HRS §343-5 Trigger(s):	Trigger 1 (use of state lands) and Trigger 2 (use of conservation districts)
Island(s):	Hawai'i
Judicial District(s):	Puna, South Hilo, North Hilo, Kau, Hamakua, South Kona, North Kona, South Kohala, North Kohala
TMK(s):	Fishing areas around Hawai'i identified in Figure 1
Permit(s)/Approval(s):	Commercial Aquarium Fishing Permits issued pursuant to HRS §188-31, Commercial Marine License issued pursuant to HRS 189-2,3, West Hawai'i Aquarium Permit issued pursuant to HAR 13-60.4
Approving Agency:	Department of Land and Natural Resources
<i>Contact Name, Email, Telephone, Address</i>	David Sakoda; david.sakoda@hawaii.gov, 808-587-0104, 1151 Punchbowl Street, Room 330, Honolulu, HI 96813
Applicant:	Pet Industry Joint Advisory Council (PIJAC) on behalf of Hawaii fishers
<i>Contact Name, Email, Telephone, Address</i>	Jim Lynch; jim.lynch@kigates.com; 206.370-6587; 925 Fourth Ave., Suite 2900 Seattle, WA 98104
Consultant:	Stantec Consulting Services Inc
<i>Contact Name, Email, Telephone, Address</i>	Terry VanDeWalle; terry.vandewalle@stantec.com; (319) 334-3755; 2300 Swan Lake Blvd., Suite 202 Independence, IA 50644

Status (select one)

DEA-AFNSI

Submittal Requirements

Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.

FEA-FONSI

Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.

FEA-EISPN

Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.

Act 172-12 EISPN ("Direct to EIS")

Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required, and a 30-day comment period follows from the date of publication in the Notice.

DEIS

Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.

FEIS

Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.

- FEIS Acceptance Determination The approving agency simultaneously transmits to both the OEQC and the applicant a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.
- FEIS Statutory Acceptance The approving agency simultaneously transmits to both the OEQC and the applicant a notice that it did not make a timely determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and therefore the applicant's FEIS is deemed accepted as a matter of law.
- Supplemental EIS Determination The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required, and no comment period ensues upon publication in the Notice.
- Withdrawal Identify the specific document(s) to withdraw and explain in the project summary section.
- Other Contact the OEQC if your action is not one of the above items.

Project Summary

The purpose of the Applicant's action is to ensure that commercial aquarium fish collection allows for the lawful, responsible, and sustainable commercial collection of various fish species from nearshore habitats. The objective of the proposed action is to create a program under the DLNR which helps to facilitate the permitting process for Aquarium Permits for the island of Hawai'i including the West Hawai'i Regional Fishery Management Area.

The need for the Applicant's action is to continue commercial aquarium fishers' livelihoods in compliance with all applicable laws, rules, and regulations pertaining to the industry.

The Applicant has proposed a Finding of No Significant Impact, but the Department of Land and Natural Resources finds that the action may have a significant impact and therefore the preparation of an Environmental Impact Statement is required.

Final Environmental Assessment

**Issuance of Commercial Aquarium Permits for the
Island of Hawai'i**

June 7, 2018

Applicant

Name: Pet Industry Joint Advisory Council (PIJAC)
Address: 1615 Duke St., #100 Alexandria, VA 22314
Phone: 202.452.1525

Approving Agency

Hawai'i Department of Land and Natural Resources
Division of Aquatic Resources
1151 Punchbowl Street, Room 330
Honolulu, HI 96813-3088

APPLICANT PUBLICATION FORM

Project Name:	Issuance of Commercial Aquarium Permits for the Island of Hawai'i
Project Short Name:	FEA Hawai'i Commercial Aquarium Permits
HRS §343-5 Trigger(s):	Trigger 1 (use of state lands) and Trigger 2 (use of conservation districts)
Island(s):	Hawai'i
Judicial District(s):	Puna, South Hilo, North Hilo, Kau, Hamakua, South Kona, North Kona, South Kohala, North Kohala
TMK(s):	Fishing areas around Hawai'i identified in Figure 1
Permit(s)/Approval(s):	Commercial Aquarium Fishing Permits issued pursuant to HRS §188-31, Commercial Marine License issued pursuant to HRS 189-2,3, West Hawai'i Aquarium Permit issued pursuant to HAR 13-60.4
Approving Agency:	Department of Land and Natural Resources
<i>Contact Name, Email, Telephone, Address</i>	David Sakoda; david.sakoda@hawaii.gov, 808-587-0104, 1151 Punchbowl Street, Room 330, Honolulu, HI 96813
Applicant:	Pet Industry Joint Advisory Council (PIJAC) on behalf of Hawaii fishers
<i>Contact Name, Email, Telephone, Address</i>	Jim Lynch; jim.lynch@klgates.com; 206.370-6587; 925 Fourth Ave., Suite 2900 Seattle, WA 98104
Consultant:	Stantec Consulting Services Inc
<i>Contact Name, Email, Telephone, Address</i>	Terry VanDeWalle; terry.vandewalle@stantec.com; (319) 334-3755; 2300 Swan Lake Blvd., Suite 202 Independence, IA 50644

Status (select one)

DEA-AFNSI

Submittal Requirements

Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.

XX FEA-FONSI

Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.

FEA-EISPN

Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.

Act 172-12
EISPN ("Direct to
EIS")

Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required, and a 30-day comment period follows from the date of publication in the Notice.

DEIS

Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.

FEIS

Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.

- ___ FEIS Acceptance Determination The approving agency simultaneously transmits to both the OEQC and the applicant a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.

- ___ FEIS Statutory Acceptance The approving agency simultaneously transmits to both the OEQC and the applicant a notice that it did not make a timely determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and therefore the applicant's FEIS is deemed accepted as a matter of law.

- ___ Supplemental EIS Determination The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required, and no comment period ensues upon publication in the Notice.

- ___ Withdrawal Identify the specific document(s) to withdraw and explain in the project summary section.

- ___ Other Contact the OEQC if your action is not one of the above items.

Project Summary

The purpose of the Applicant's action is to ensure that commercial aquarium fish collection allows for the lawful, responsible, and sustainable commercial collection of various fish species from nearshore habitats. The objective of the proposed action is to create a program under the DLNR which helps to facilitate the permitting process for Aquarium Permits for the island of Hawai'i including the West Hawai'i Regional Fishery Management Area.

The need for the Applicant's action is to continue commercial aquarium fishers' livelihoods in compliance with all applicable laws, rules, and regulations pertaining to the industry.

Project Summary

Project Name: Issuance of Commercial Aquarium Permits for the Island of Hawai'i.

Proposed Action: Issuance of Commercial Aquarium Permits ensuring lawful, responsible, and sustainable commercial collection of various aquarium fish species from nearshore habitats pursuant to Aquarium Fishing Permits issued under HRS §188-31.

Applicant: Pet Industry Joint Advisory Council (PIJAC) on behalf of Hawai'i fishers.

Applicant Contact: Jim Lynch, KL Gates LLP, 206-370-6587

Approving Agency: Department of Land and Natural Resources

Project Location: Throughout the near shore region (to depths of 100 fathoms) of the island of Hawai'i except in those areas already designated as no collection areas such as Fish Replenishment Areas.

Land Use Classification: N/A

Land Area: N/A NON-MLCDs

Tax Map Key: N/A

State Land District: N/A

Land Owner: State of Hawai'i

Permits Required: Commercial Aquarium Fishing Permits issued pursuant to HRS §188-31, Commercial Marine License issued pursuant to HRS 189-2,3, West Hawai'i Aquarium Permit issued pursuant to HAR 13-60.4.

EA Trigger: Trigger 1 (use of state lands) and Trigger 2 (use of conservation districts).

Anticipated Determination: Finding of No Significant Impact

Table of Contents

EXECUTIVE SUMMARY	I
ABBREVIATIONS	III
1.0 INTRODUCTION	1
1.1 BACKGROUND	1
1.1.1 Status of Aquarium Permits	2
1.2 REGULATORY BACKGROUND	3
1.2.1 Hawai'i Revised Statute (HRS) 188-31	3
1.2.2 Hawai'i Environmental Policy Act	3
1.2.3 Act 306 SLH – West Hawai'i Regional Fishery Management Area	6
2.0 PURPOSE AND NEED	13
2.1 PURPOSE FOR APPLICANT'S ACTION	13
2.2 NEED FOR APPLICANT'S ACTION	13
2.3 PURPOSE FOR APPROVING AGENCY'S (DLNR) ACTION	13
2.4 NEED FOR APPROVING AGENCY'S (DLNR) ACTION	14
2.5 SCOPE OF ANALYSIS	14
2.5.1 Resources Evaluated and Dismissed from Further Consideration	14
2.5.2 Resources Retained for Further Analysis	15
3.0 ALTERNATIVES	15
3.1 NO ACTION ALTERNATIVE	16
3.2 STATUS QUO ALTERNATIVE	17
3.3 ACHILLES TANG CONSERVATION (PREFERRED) ALTERNATIVE	17
4.0 AFFECTED ENVIRONMENT	17
4.1 SOCIOECONOMIC RESOURCES	18
4.1.1 Socioeconomic Aspects of the Commercial Aquarium Fishery	21
4.2 CULTURAL RESOURCES	22
4.2.1 Cultural Aspects of the Commercial Aquarium Fishery	24
4.3 PHYSICAL RESOURCES	25
4.3.1 Climate	26
4.3.2 Physical Aspects of the Commercial Aquarium Fishery	27
4.4 BIOLOGICAL RESOURCES	28
4.4.1 White List Species	28
4.4.2 Non-White List Wildlife Species	50
4.4.3 Hawai'i Species of Greatest Conservation Need	51
4.4.4 Threatened and Endangered Wildlife Species	53
4.4.5 Reef Habitat	54
4.4.6 Invasive Species	56
4.4.7 Biological Aspects of the Commercial Aquarium Fishery	57
5.0 ENVIRONMENTAL CONSEQUENCES	64
5.1 HRS §189-3 AND DATA ANALYSIS	65

5.2	SOCIOECONOMIC RESOURCES	66
5.2.1	Direct Impacts	66
5.2.2	Indirect Impacts.....	69
5.2.3	Cumulative Impacts.....	71
5.3	CULTURAL RESOURCES	71
5.3.1	Direct Impacts	71
5.3.2	Indirect Impacts.....	73
5.3.3	Cumulative Impacts.....	74
5.4	BIOLOGICAL RESOURCES	74
5.4.1	Direct Impacts	74
5.4.2	Indirect Effects	96
5.4.3	Cumulative Impacts.....	98
5.5	EVALUATION OF HEPA SIGNIFICANCE CRITERIA.....	104
6.0	AGENCIES, ORGANIZATIONS, AND INDIVIDUALS CONSULTED	107
6.1	FEDERAL AGENCIES	107
6.2	STATE AGENCIES	107
6.3	COMMUNITY ORGANIZATIONS	107
6.4	INDEPENDENT REVIEWERS	107
6.5	INDIVIDUALS.....	108
7.0	DRAFT EA PUBLIC REVIEW	108
8.0	LIST OF PREPARERS	112
9.0	LITERATURE CITED	112

LIST OF TABLES

Table 1.	Statutory Triggers for Hawai'i Environmental Policy Act (HEPA).	4
Table 2.	List of marine species for which all take or possession is prohibited.....	10
Table 3.	Number of Aquarium Permits, reports, and fishery value on the island of Hawai'i since 2000. n.d. = Not Disclosed (DAR 2018a).....	21
Table 4.	White List species (DAR 2014a).....	28
Table 5.	Threatened and endangered marine species of Hawai'i.	53
Table 6.	West Hawai'i Open Area population estimates of all White List species based on WHAP data and percent of that population taken annually by aquarium fishers at the 30'-60' depth in 2014 (DAR 2014a).	58
Table 7.	Summary of commercial Aquarium Permits and values by year from 2000-2017 for the WHRFMA, East Hawai'i and the State of Hawai'i (Dar 2018a).....	67
Table 8.	Total fish and invertebrates collected under Aquarium Permits from East Hawai'i and the WHRFMA annually from 2000-2017 (DAR 2018a).....	75
Table 9.	Change in density of Yellow Tang, Kole, and Achilles Tang in the WHRFMA based on WHAP data. 'Before' = Mean of 1999-2000; 'After' = Mean 2016-2017. Young-of-year (YOY) not included. Bold = statistically significant t-test (DAR 2018b).....	77

Table 10. CREP (2018) estimated population of Yellow Tang for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in the WHRFMA (DAR 2018b).....	77
Table 11. CREP (2018) estimated population of Kole for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in the WHRFMA (DAR 2018b).....	80
Table 12. CREP (2018) estimated population of Achilles Tang for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in the WHRFMA (DAR 2018b).....	82
Table 13. CREP (2018) estimated populations of Yellow Tang, Kole, and Achilles Tang for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in East Hawai'i (DAR 2018a).	85
Table 14. CREP (2018) estimated populations of Psychedelic Wrasse, Tinker's Butterflyfish, and Fisher's Angelfish for the island of Hawai'i and percentage of populations taken by commercial aquarium fishers in the WHRFMA (DAR 2018a).	88
Table 15. Summary of CREP (2018) population estimates, reported catch from East and West Hawai'i since 2000 (DAR 2018a), and the impact of average and maximum annual collection by species for the 40 White List species. n.d. = Not Disclosed (Section 5.1); NA = Insufficient data available	91
Table 16. Available data on White List species collected by commercial non-aquarium fishers in the State and on the island of Hawai'i from 2000-2017 (DAR 2018a). n.d. = Not Disclosed (see Section 5.1).....	101

LIST OF FIGURES

Figure 1. Division of Aquatic Resources Managed Areas - Island of Hawai'i.	8
Figure 2. Summary of all public testimonies on the WHRFMA rule (DAR 2014a).	10
Figure 3. Total visitor spending: nominal and real 2004-2016 (HDBEDT 2017).	20
Figure 4. WHAP and CREP survey locations – Island of Hawai'i.	62
Figure 5. Overall changes in Yellow Tang density (Mean ± SE) in FRAs, MPAs, and Open Areas, 1999-2017. Yellow vertical bars indicate mean density (MAY-NOV) of Yellow Tang YOY. YOY are not included in trend line data (DAR 2018b).	79
Figure 6. Overall changes in Kole density (Mean ± SE) in FRAs, MPAs, and Open Areas, 1999-2017. Vertical bars indicate mean density (JUN-NOV) of Kole YOY. YOY are not included in trend line data (DAR 2018b).....	81
Figure 7. Overall changes in Achilles Tang density in FRAs, MPAs, and Open Areas, 1990-2017. Vertical bars indicate mean density (JUN-NOV) of Achilles Tang YOY. YOY are not included in trend line data (DAR 2018b).....	84

LIST OF APPENDICES

APPENDIX A	Independent Reviewer Comments
APPENDIX B	Comments Received on the DEA and Responses
APPENDIX C	DEA Transmittal Emails and Letter
APPENDIX D	Applicant Response to DLNR Comment Request

Executive Summary

In October 2017, the circuit court ruled that, based upon the Supreme Court of Hawai'i's opinion, existing permits for use of fine mesh nets to catch aquatic life for aquarium purposes are illegal and invalid. The circuit court ordered the Department of Land and Natural Resources (DLNR) not to issue any new permits pending environmental review. The DLNR has not issued new or additional permits under HRS §188-31 since September of 2017.

This Final Environmental Assessment (FEA) evaluates the impacts of issuance of Commercial Aquarium Permits on the island of Hawai'i. The Applicant has prepared this FEA on behalf of Hawai'i fishers to inform the public of the proposed action (i.e., issuance of Commercial Aquarium Permits) and the impacts of the proposed action and its alternatives, and to incorporate information gained through public involvement. Implementation of the Preferred Alternative will ensure the lawful, responsible, and sustainable commercial collection of various fish species from nearshore habitats on the island of Hawai'i.

Aside from the additional conservation measure included in the Preferred Alternative, the issuance of Commercial Aquarium Permits under the Preferred Alternative does not include any activities different from, or in addition to, those that have occurred in the past. There will be no construction of permanent or semi-permanent infrastructure, no discharges into coastal, surface or ground waters, no dredging, and no significant use of hazardous materials that could be released into the environment. The DLNR's issuance of Commercial Aquarium Permits is not anticipated to result in significant beneficial or adverse impacts to water and air quality, geology and soil resources, aesthetics, noise, vegetation, terrestrial wildlife, and avian species, threatened and endangered species, land use, public health and safety, communications, historical resources, transportation, utilities, or population and demographics from their current condition.

The Preferred Alternative does not involve an irrevocable commitment or loss or destruction of any natural or cultural resource. Both the National Oceanic and Atmospheric Administration's (NOAA) Coral Reef Ecosystems Program (CREP; now known as the Ecosystem Science Division) and Hawai'i's DLNR, Division of Aquatic Resources' (DAR) West Hawai'i Aquarium Project (WHAP) collect data on fish populations in nearshore waters of the island of Hawai'i that are available and appropriate for estimating population size, within the limitations of each survey, and for analysis of the impact of fish collection under Commercial Aquarium Permits. The WHAP data are collected from 25 transect survey sites located solely within the West Hawai'i Regional Fishery Management Area (WHRFMA) between depths of 30-60 feet. The CREP data are collected from 257 stationary point count locations located around the island of Hawai'i (except for collection zone 107; Figure 4), from depths of 0-98 feet. Both data sets are presented and analyzed in this FEA. However, due to the larger spatial coverage and greater range of depths surveyed by the CREP, these data are considered to be a better estimator of island-wide fish population size, and therefore serve as the primary basis for the impact analysis in this FEA.

Analysis of the CREP data indicates that if the average catch from 2000-2017 were to occur over the 12-month analysis period considered in this FEA, the collection of 37 of the 40 White List species would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. Research suggests collection of between 5%-25% is sustainable for various reef species similar to those on the White List (e.g., tang, wrasse,

butterflyfish, angelfish, triggerfish). Based on the low percentage of the overall populations collected annually by commercial aquarium fishers, which is spread throughout the year and across multiple areas, as well as the targeted take of smaller, less fecund individuals, commercial aquarium collection likely has minimal impacts on populations in general.

Based on WHAP data, the DAR has suggested decreasing population trends for the Achilles Tang in the WHRFMA, and in 2014 a bag limit of 10 Achilles Tang per day was imposed on commercial aquarium collection (recreational and non-aquarium commercial harvest are not subject to the bag limit). Under the Preferred Alternative, the daily bag limit for Achilles Tang would be reduced from 10 per day to 5 per day for all fisheries in the WHRFMA. The average annual commercial aquarium collection of Achilles Tang from 2011 - 2014 represented 2.4% of the overall island of Hawai'i population. Under the Preferred Alternative, catch of Achilles Tang is estimated to be reduced by 50%, resulting in an estimated 1.2% of the island-wide population taken over the 12-month analysis period. This level of take is well below the lower end of what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Two studies have concluded that the aquarium fishery has no significant impact on coral or the reef ecosystem. In addition, herbivores taken by the aquarium fishery typically consist of the smaller size classes which are the least effective sizes for cropping algae. One study found there were no increases in the abundance of macroalgae where the abundance of herbivores was reduced by aquarium collecting.

The Preferred Alternative does not substantially affect the economic welfare, social welfare, and cultural practices of the community or State, but plays an important role as a nearshore fishery in the state. For the period 2000 to 2017, the commercial aquarium fishery within the WHRFMA alone added an average of \$1,354,045 annually to the state of Hawai'i's economy, while the overall aquarium fishery within the state of Hawai'i added an average of \$2,075,088 to the economy. In 2017, it is estimated that up to 57 individuals were directly employed in the aquarium fishery in the WHRFMA (up to 266 employed in the state of Hawai'i). Loss of the fishery would result in the loss of income, tax revenue, and jobs.

Abbreviations

BIAAF	Big Island Association of Aquarium Fishermen
BLNR	Board of Land and Natural Resources
CML	Commercial Marine License
CREP	Coral Reef Ecosystems Program
DAR	Division of Aquatic Resources
DLNR	Department of Land and Natural Resources
DOCARE	Division of Conservation and Resources Enforcement
DOH	Department of Health
EA	Environmental Assessment
EC	Environmental Council
EIS	Environmental Impact Statement
ENSO	El Niño Southern Oscillation
EQC	Environmental Quality Commission
ESA	Endangered Species Act
FEA	Final Environmental Assessment
FMA	Fisheries Management Area

FONSI	Finding of No Significant Impact
FRA	Fish Replenishment Area
HDBEDT	Hawai'i Department of Business, Economic Development & Tourism
HEPA	Hawai'i Environmental Policy Act
HAR	Hawai'i Administrative Rule
HRS	Hawai'i Revised Statute
IUCN	International Union for the Conservation of Nature
KMLAC	Ka'ūpūlehu Marine Life Advisory Committee
MLCD	Marine Life Conservation District
MHI	Main Hawaiian Islands
MPA	Marine Protected Areas
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NWHI	Northwestern Hawaiian Islands
OEQC	Office of Environmental Quality Control
OHA	Office of Hawaiian Affairs
PIJAC	Pet Industry Joint Advisory Council

QUEST	Quantitative Underwater Ecological Survey Techniques
SAWCS	Statewide Aquatic Wildlife Conservation Strategy
SCUBA	Self-contained Underwater Breathing Apparatus
SGCN	Species of Greatest Conservation Need
SWAP	State Wildlife Action Plan
TL	Total Length
UH	University of Hawai'i
USFWS	United States Fish and Wildlife Service
WHAP	West Hawai'i Aquarium Project
WHFC	West Hawai'i Fishery Council
WHRFMA	West Hawai'i Regional Fishery Management Area
WHRFWG	West Hawai'i Reef Fish Working Group

1.0 INTRODUCTION

This Final Environmental Assessment (FEA) has been prepared by the Pet Industry Joint Advisory Council (PIJAC; the Applicant) on behalf of Hawai'i fishers pursuant to the Hawai'i Environmental Policy Act (HEPA). This FEA evaluates the impacts of issuance of Commercial Aquarium Permits (Aquarium Permit) on the island of Hawai'i which includes the West Hawai'i Regional Fishery Management Area (WHRFMA; Section 1.2.2), pursuant to Hawai'i Revised Statute (HRS) 188-31 (2013; Title 12 – Conservation and Resources; 188 – Fishing Rights and Regulations; 188-31 – Permits to take aquatic life for aquarium purposes). The Applicant has prepared this FEA to inform the public of the proposed action (i.e., issuance of Aquarium Permits) and the impacts of the proposed action and its alternatives, and to incorporate information gained through public involvement in order to aid decision makers in making an informed decision regarding the proposed action.

Hawai'i Revised Statute 188-31 states that, "Except as prohibited by law, the department (Department of Land and Natural Resources; DLNR), upon receipt of a written application, may issue an Aquarium Permit, not longer than one year in duration, to use fine meshed traps, or fine meshed nets other than throw nets, for the taking of marine or freshwater nongame fish and other aquatic life for aquarium purposes." As set down by the Supreme Court of Hawai'i (SCWC-13-0002125), issuance of an Aquarium Permit constitutes a discretionary State action by the DLNR and is thus subject to the HEPA, which requires that State agencies consider the impact of governmental actions on the environment by preparing an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) to document the potential impacts of the State action. Accordingly, the Applicant has prepared this FEA to evaluate the potential impacts of alternatives associated with issuance of Aquarium Permits on the island of Hawai'i and the WHRFMA, and a No Action Alternative. The consequences of these alternatives on various resources are discussed in this FEA.

1.1 BACKGROUND

In 2014, the Hawai'i commercial aquarium fishery was the most economically valuable commercial inshore fishery in the State with fiscal year reported landings greater than \$2.3 million (DAR 2014a). In 2017, the commercial aquarium fishery on the island of Hawai'i reported landings near \$1.4 million, with more than \$1.29 million in the WHRFMA alone (DAR 2018a). The fishery developed initially on O'ahu in the late 1940's, went through a period of expansion in the 1970's and has subsequently declined on O'ahu both in terms of catch and overall value (DAR 2014a). The West Hawai'i aquarium fishery has undergone substantial and sustained expansion over the past 40 years. As of 2017, approximately 45% of the aquarium fish caught in the State and nearly 67% of value came from the WHRFMA (DAR 2018a).

Commercial aquarium fish collection in Hawai'i, and especially in West Hawai'i has long been a subject of controversy (DAR 2014a). As early as 1973, public concern over collecting activities prompted Hawai'i's DLNR, then Division of Fish and Game, to suspend the issuance of Aquarium Permits for a week while issues were considered and addressed (DAR 2014a). As a result, Aquarium Permit holders were required to submit monthly catch reports. However, no studies were conducted and no 'sanctuary' areas were created at that time. The first sanctuary areas were created through a gentleperson's agreement primarily

between dive/snorkel operators and commercial aquarium fishers in 1987 and four of these sanctuaries were incorporated into the Kona Coast Fisheries Management Area (FMA) in 1991 (DAR 2004). This interindustry collaboration and cooperation laid the groundwork for a more inclusive management approach to the fishery. The WHRFMA was created by Legislative Act 306 (1998) largely in response to longstanding and widespread conflict surrounding commercial aquarium fish collection (Section 1.2.3). The Act required substantive community input in management decisions (DAR 2014a).

In order to accomplish the mandates of Act 306, a community advisory group, the West Hawai'i Fishery Council (WHFC) was convened by the Division of Aquatic Resources (DAR) in 1998 (Section 1.2.3.1). Consisting of 24 voting members and 6 ex-officio agency representatives from DLNR, Sea Grant, and the Governor's Office, the WHFC's members represented diverse geographic areas and various stakeholder, community, and user groups in West Hawai'i. Four aquarium representatives (three collectors and one aquarium shop owner) were members of the WHFC, 40% of the WHFC were maka'āinana (i.e., native fishers) and most of the members were previously on the West Hawai'i Reef Fish Working Group (WHRFWG). The first action of the WHFC was the designation of a network of nine Fish Replenishment Areas (FRAs), in which no aquarium fish collection is allowed. The FRA's, along with existing Marine Protected Areas (MPA), comprise 35.2% of the West Hawai'i coastline (DAR 2014a). Although closed to commercial and recreational aquarium fishing, FRAs are still open to other forms of permitted fishing. Concerns over continued expansion of the commercial aquarium fishery and collecting effects in the Open Areas (i.e., areas where aquarium fish collection is allowed) prompted the DLNR in 2013 to establish a 'White List' of 40 species that can be taken by commercial aquarium fishers within the WHRFMA (Section 4.4.1). All other species are off limits within the WHRFMA (DAR 2014a) but can be taken in East Hawai'i.

1.1.1 Status of Aquarium Permits

In October 2012, Earthjustice filed a complaint under the HEPA in the First Circuit Court on behalf of four individuals and three non-governmental organizations. The complaint sought a court order to force the State to comply with the HEPA's requirement to examine commercial aquarium fish collection's effects on the environment before issuing collection permits. The complaint also asked the court to halt collection under existing Aquarium Permits and to stop DLNR from issuing new permits until the environmental review is complete (Earthjustice 2012). On June 24, 2013, the Circuit Court of the First Circuit announced their findings on the case through an 'Order Granting Department of Land and Natural Resources State of Hawai'i's, Motion for Summary Judgment filed February 4, 2013, and Denying Plaintiffs' Motion for Summary Judgment filed February 5, 2013 (Summary Judgment Order), and the Final Judgment in Favor of Defendant and Against Plaintiffs (Judgment), also filed on June 24, 2013. The Hawai'i Intermediate Court of Appeals upheld this decision in August 2016. Permit issuance by DLNR's DAR continued.

Through the appeals process, Earthjustice brought the case before the Supreme Court of Hawai'i. On September 6, 2017, the Supreme Court of Hawai'i ruled that aquarium collection using fine meshed traps or nets is subject to the environmental review procedures provided in the HEPA (SCWC-13-0002125). The issue was remanded to the circuit court for further proceedings. In light of the ruling, DLNR discontinued issuance of new Aquarium Permits and renewal of existing Aquarium Permits (DAR 2017).

On October 27, 2017, the circuit court ruled that, based upon the Supreme Court of Hawai'i's opinion, existing permits for use of fine mesh nets to catch aquatic life for aquarium purposes are illegal and invalid. The circuit court ordered the DLNR not to issue any new permits pending environmental review. The DLNR has not issued new or additional permits under HRS §188-31 since the Supreme Court's opinion was issued in September of 2017 (DAR 2017).

1.2 REGULATORY BACKGROUND

1.2.1 Hawai'i Revised Statute (HRS) 188-31

Hawai'i Revised Statute 188-31 (2013; Title 12 – Conservation and Resources; 188 – Fishing Rights and Regulations; 188-31 – Permits to take aquatic life for aquarium purposes) states that:

1. Except as prohibited by law, the department, upon receipt of a written application, may issue an aquarium fish permit, not longer than one year in duration, to use fine meshed traps, or fine meshed nets other than throw nets, for the taking of marine or freshwater nongame fish and other aquatic life for aquarium purposes.
2. Except as prohibited by law, the permits shall be issued only to persons who can satisfy the department that they possess facilities to and can maintain fish and other aquatic life alive and in reasonable health.
3. It shall be illegal to sell or offer for sale any fish and other aquatic life taken under an aquarium fish permit unless those fish and other aquatic life are sold alive for aquarium purposes. The department may adopt rules pursuant to HRS chapter 91 for the purpose of this section.

1.2.2 Hawai'i Environmental Policy Act

The HEPA requires that State agencies consider the impact of governmental actions on the environment because humanity's activities have broad and profound effects upon the interrelations of all components of the environment, and an environmental review process would integrate the review of environmental concerns with existing planning processes of both the State and county governments. The HEPA includes the following statutes and administrative rules: a) HRS Chapter 343, Environmental Impact Statements; b) Hawai'i Administrative Rule (HAR) 11-200, Environmental Impact Statement Rules; c) HAR 11-201, Environmental Council Rules of Practice and Procedure (OEQC 2012).

The authorities governing the HEPA process include:

1. The text of the statute (Chapter 343, HRS) and its implementing administrative rules (Chapters 11-200, and 11-201, HAR, Department of Health;
2. The State Environmental Policy (Chapter 344, HRS);
3. The enumerated and written advisory opinions of the Attorney General of the State of Hawai'i;
4. The declaratory rulings of the Environmental Quality Commission (EQC) and the Environmental Council (EC); and,

5. The appellate rulings of the Intermediate Court of Appeals and the Supreme Court of the State of Hawai'i.

The HEPA process also alerts decision makers to significant environmental effects that may result from the implementation of certain actions (HRS 343-1). The specific instances when a proposing agency or an approving agency must prepare an EA (for an action not declared exempt under Section 11-200-8, HAR) derive from Section 343-5(a) HRS and are listed in Table 1.

Table 1. Statutory Triggers for Hawai'i Environmental Policy Act (HEPA).

Instances		Responsible Agency
1.	Use of State or County lands or use of State or County funds, other than funds to be used for feasibility or planning studies for possible future programs or projects that the agency has not approved, adopted, or funded, or funds to be used for the acquisition of unimproved real property; provided that the agency shall consider environmental factors and available alternatives in its feasibility or planning studies; provided further that an EA for proposed uses under Section 205-2(d)(11) or 205-4.5(a)(13) shall only be required pursuant to Section 205-5(b).	The agency with title to the land or is using funds.
2.	Use of any land classified as conservation district by the state land use commission under Chapter 205.	Office of Conservation and Coastal Lands of the DLNR.
3.	Use within a shoreline area as defined in Section 205A-41. The shoreline area in question is defined by county ordinance and consists of a predetermined distance going inland from the certified shoreline. In the City and County of Honolulu, this is forty-feet.	The respective county planning department.
4.	Use within any historic site as designated in the National Register or Hawai'i Register, as provided for in the Historic Preservation Act of 1966, Public Law 89-665, or Chapter 6E.	The respective county planning department.
5.	Use within the Waikiki area of O'ahu, the boundaries of which are delineated in the land use ordinance as amended, establishing the "Waikiki Special District".	The Department of Planning and Permitting of the City and County of Honolulu.
6.	Any amendments to existing county general plans where the amendment would result in designations other than agriculture, conservation, or preservation, except actions proposing any new county general plan or amendments to any existing county general plan initiated by a county.	The respective county planning department.
7.	Any reclassification of any land classified as a conservation district by the state land use commission under Chapter 205.	The Land Use Commission, except in cases involving less than fifteen-acres (which cases are processed by the respective county planning department).
8.	Any construction of new or the expansion or modification of existing helicopter facilities within the State, that may affect: A. Any land classified as a conservation district by the state land use commission B. A shoreline area C. Any historic site as designated in the National Register or Hawai'i Register	The respective county planning department where the project is located processes the clearance of this trigger.
9.	Propose any: A. Wastewater treatment unit, except an individual wastewater system or a wastewater treatment unit serving fewer than fifty single family dwellings or the equivalent B. Waste-to-energy facility C. Landfill D. Oil refinery E. Power-generating facility	The agencies of the State or County government that issue discretionary approvals for the listed items.

Introduction

The Supreme Court of Hawai'i ruled (SCWC-13-0002125) that an environmental review of the Aquarium Permit process is warranted based on the first (use of state lands) and second (use of conservation districts) statutory triggers identified in Table 1, above.

Actions that do not fall under one of the triggers are excluded by statute from the HEPA process. Any action that is not excluded by statute must undergo the HEPA environmental review process (OEQC 2012). The analysis within an EA is used to determine whether the impact on the environment would be significant enough to warrant the preparation of a full EIS or would be used to declare a Finding of No Significant Impact (FONSI) thus clearing the HEPA process.

In most cases, an agency determines that an action may have a significant impact on the environment and require an EIS if it meets any of the following criteria:

- Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;
- Curtails the range of beneficial uses of the environment;
- Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;
- Substantially affects the economic or social welfare of the community or State;
- Substantially affects public health;
- Involves substantial secondary impacts, such as population changes or effects on public facilities;
- Involves a substantial degradation of environmental quality;
- Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;
- Substantially affects a rare, threatened, or endangered species, or its habitat;
- Detrimentially affects air or water quality or ambient noise levels;
- Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;
- Substantially affects scenic vistas and view planes identified in county or state plans or studies; or
- Requires substantial energy consumption.

Since its inception, the HEPA process has bifurcated into two separate procedural tracks (OEQC 2012):

1. Agency actions (set forth in Section 343-5(b), HRS); refers to those proposed by a government agency; and

Introduction

2. Applicant actions (set forth in Section 343-5(c), HRS); refers to those that are initiated by a private party and “triggers” an environmental review.

The need for this FEA is based on the proposed action (i.e., DLNR issuance of Aquarium Permits).

The environmental review process described in the findings and purpose section of Chapter 343, HRS, necessitates integrating citizen concerns into the planning process and forewarning decision makers of potential significant environmental effects should implementation take place. The Hawai'i Office of Environmental Quality Control (OEQC) finds that the process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole (OEQC 2012).

1.2.3 Act 306 SLH – West Hawai'i Regional Fishery Management Area

Act 306 (SLH 1998) directed DLNR to establish the WHRFMA along the entire west coast of the Island of Hawai'i; 'bounded by the west coast of Hawai'i Island, from Ka Lae, Ka'ū (South Point) to 'Upolu Point, North Kohala, and extending from the upper reaches of the wash of the waves on shore, seaward to the limit of the State's police power and management authority.'

From Act 306:

The purpose of the WHRFMA shall be to:

1. Ensure the sustainability of the state's nearshore ocean resources;
2. Identify areas with resource and use conflicts;
3. Provide management plans as well as implementing regulations for minimizing user conflicts and resource depletion through the designation of sections of coastal waters in the WHRFMA as FRAs where certain specified fish collecting activities are prohibited and other areas where anchoring and ocean recreation activities are restricted;
4. Establish a system of day-use mooring buoys in high-use coral reef areas and limit anchoring in some of these areas to prevent anchor damage to corals;
5. Identify areas and resources of statewide significance for protection;
6. Carry out scientific research and monitoring of the nearshore resources and environment; and
7. Provide for substantive involvement of the community in resource management decisions for this area through facilitated dialogues with community residents and resource users. The DLNR shall identify the specific areas and restrictions after close consultation and facilitated dialogue with working groups of community members and resource users.

Introduction

The department shall develop a WHRFMA plan that identifies and designates appropriate areas of the management area in accordance with HRS Chapter 91 as follows:

1. Designate a minimum of thirty percent (30%) of coastal waters in the WHRFMA a FRA in which aquarium fish collection is prohibited (other fishing still permitted);
2. Establish a day-use mooring buoy system along the coastline of the WHRFMA and designate some high-use areas where no anchoring is allowed;
3. Establish a portion of the FRAs as fish reserves where no fishing of reef-dwelling fish is allowed; and,
4. Designate areas where the use of gill nets as set nets shall be prohibited.

A review of the effectiveness of the WHRFMA plan shall be conducted every five years by the DLNR in cooperation with the University of Hawai'i (UH). The DLNR shall submit a report of its findings and recommendations based on the review to the legislature no later than 20 days before the convening of the regular session following the review. The most recent review was completed in 2014 and submitted to the legislature in December of that year (DAR 2014a).

1.2.3.1 West Hawai'i Fishery Council

The DAR, in its most recent report to the legislature on the aquarium fishery (DAR 2014a), stated:

In order to accomplish the mandates of Act 306 with substantive community input, The West Hawai'i Fishery Council (WHFC) was convened on June 16, 1998 under the aegis of the DLNR and the University of Hawai'i Sea Grant. Consisting of 24 voting members and 6 ex-officio agency representatives from the DLNR, University of Hawai'i Sea Grant, and the Governor's Office, the WHFC's members represented diverse geographic areas and various stakeholder, community, and user groups in West Hawai'i. Four aquarium representatives (three collectors and one aquarium shop owner) were members of the WHFC, 40% of the WHFC were maka'ainana (i.e., native fishers) and most of the members were previously on the West Hawai'i Reef Fish Working Group (WHRFWG). The WHRFWG included over 70 members of the West Hawai'i community including aquarium collectors and charter operators and other stakeholders. The group held 9 meetings over a 15-month period. The WHRFWG opened a dialog between user groups and community members and provided a forum for the education of its members on social and biological issues involved in resource management.

The WHFC developed a FRA plan consisting of nine separate areas along the west coast of the Island of Hawai'i (Figure 1) encompassing a total of 35.2% of the West Hawai'i coastline (including already protected areas). The WHFC's FRA plan was subsequently incorporated by the DLNR into administrative rule. The FRA administrative rule became effective on December 31, 1999.

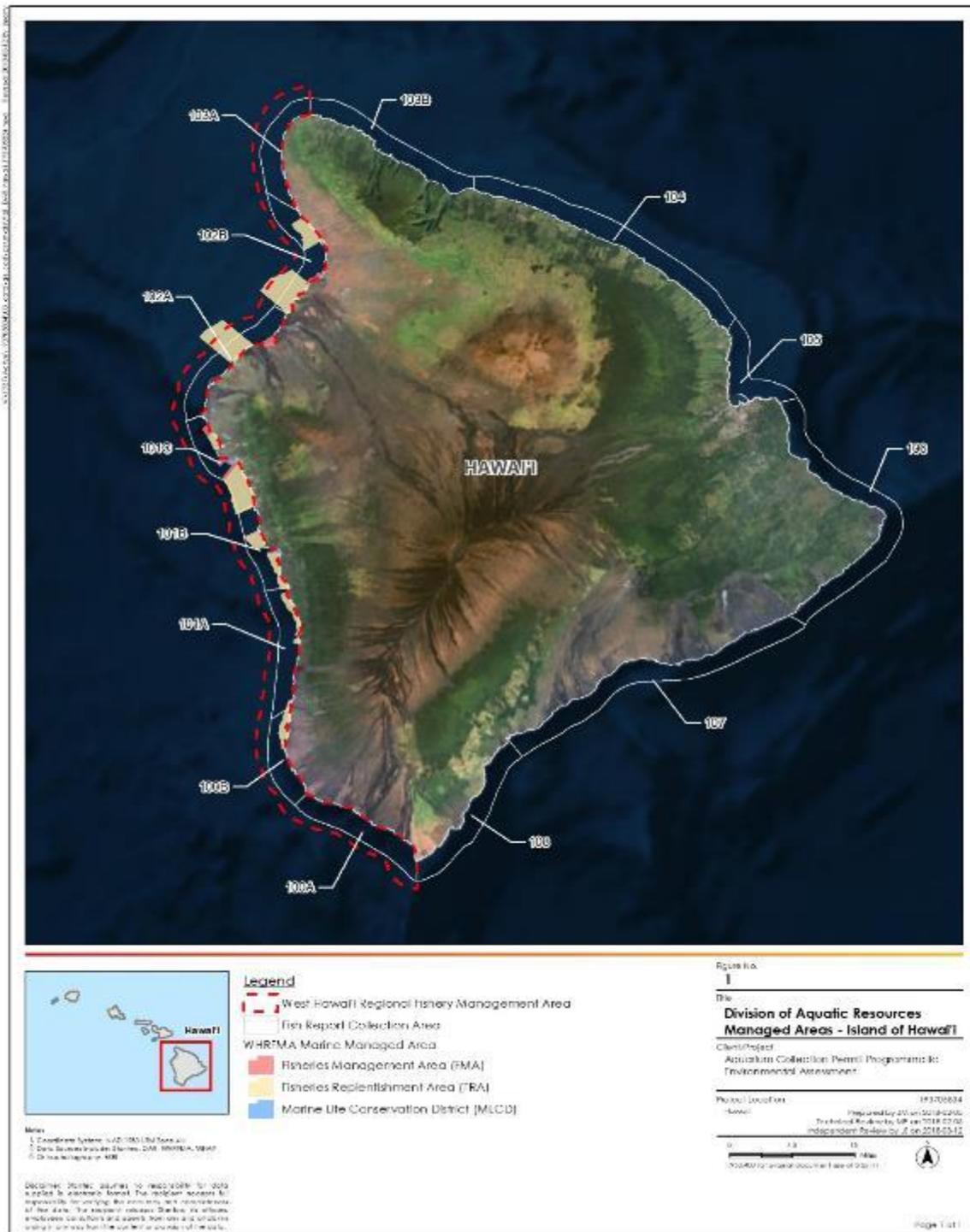


Figure 1. Division of Aquatic Resources Managed Areas - Island of Hawai'i.

Introduction

The FRAs prohibit all collecting of aquarium animals within their boundaries as well as non-fishing related fish feeding. The seaward boundaries of the FRAs extend to a depth of 600 feet (100 fathoms) and distinctive signs mark the boundaries on shore; although some have fallen into disrepair and are not easily observed (BIAAF pers. comm.).

In addition to the development of the FRA network, the WHFC, in conjunction with the DAR and University of Hawai'i Sea Grant, also implemented the following initiatives:

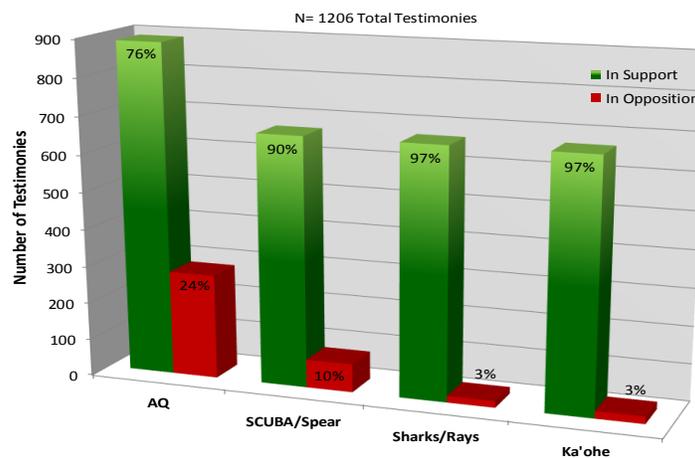
1. Sea Urchin Limited Harvest: The WHFC developed a management plan permitting the sustainable harvest of Wana (long-spine/black sea urchin) at Makae'o, the Old Kona Airport Marine Life Conservation District (MLCD). This recommendation was adopted by the DLNR as an administrative rule amendment in 2005.
2. Gill Net Rules: The WHFC developed a set of gill net rule recommendations focused on limiting impacts of large-scale commercial netting while providing for subsistence netting. This recommendation was adopted as an administrative rule amendment in 2005 and served as a model for the statewide gill net rule (HAR §13-75-12.4) which was adopted in 2007.
3. Day-Use Mooring Buoys: In collaboration with the Malama Kai Foundation, the WHFC is a working partner in the site selection process and educates communities on the value of day use moorings to preserve our coral reefs.
4. Ka'ūpūlehu Marine Reserve: DAR worked with the WHFC and the Ka'ūpūlehu Marine Life Advisory Committee (KMLAC) to develop draft rules to re-designate the Ka'ūpūlehu Fish Replenishment Area as a Marine Reserve where the take of nearshore marine life will be prohibited for 10 years, with exceptions to allow for the continued collection of pelagic and deep benthic species using specific fishing gear. The proposal is the initial first step in complying with the statutory mandate of HRS §188F-4(3) to establish a portion of the FRAs where no fishing of reef-dwelling fish is allowed. In October 2014, the Board of Land and Natural Resources (BLNR) approved holding a Public Hearing on this rule amendment. The rule subsequently took effect on July 29, 2016. Several other local communities are actively engaged in developing management recommendations which include some form of a highly protected nearshore area.
5. Self-contained underwater breathing apparatus (SCUBA) Spear Fishing Prohibition: The WHFC proposed banning SCUBA (and rebreather) spear fishing in West Hawai'i as is the case in most other Pacific island jurisdictions.
6. Pebble Beach User Conflict: The WHFC drafted recommendations addressing a conflict between aquarium collectors and this South Kona community. It recommended creating a new FRA in the Pebble Beach area and opening up to collecting a similarly sized section of another FRA (by a non-residential area). The latter part of the 'swap' was subsequently rejected by aquarium collectors. The Big Island Association of Aquarium Fishermen (BIAAF) agreed to the creation of the Pebble Beach FRA, with nothing in return, as an act of good faith to further mitigate user conflict (BIAAF, pers. comm.). The BIAAF conceded directly with the representatives of the "Friends of Pebble Beach." The meeting was orchestrated DAR.

7. Aquarium ‘White List’ (Section 4.4.1): Working with commercial aquarium collectors the WHFC established a list of 40 fish species permitted for aquarium take. Only those fish found on the White List can be collected live for aquarium use. All other fishes and all invertebrates are off-limits to collecting. Size and bag limits are also established for three of the species on the White List, Yellow Tang, Kole, and Achilles Tang.
8. Species of Special Concern: Prohibition on the take or possession of nine species of inshore sharks and rays and two invertebrate crown-of-thorns predators (Table 2).

Table 2. List of marine species for which all take or possession is prohibited.

Common Name	Scientific Name	Hawaiian Name
Spotted Eagleray	<i>Aetobatus narinari</i>	Hīhīmanu
Broad Stingray	<i>Dasyatis lata</i>	Hīhīmanu
Pelagic Stingray	<i>Pteroplatytrygon violacea</i>	Hīhīmanu
Hawaiian Stingray	<i>Dasyatis hawaiiensis</i>	Hīhīmanu
Tiger Shark	<i>Galeocerdo cuvier</i>	Manō/niuhi
Whale Shark	<i>Rhincodon typus</i>	Lele wa'a
Whitetip Reef Shark	<i>Triaenodon obesus</i>	Manō lālākea
Blacktip Reef Shark	<i>Carcharhinus melanopterus</i>	Manō pā'ele
Gray Reef Shark	<i>Carcharhinus amblyrhynchos</i>	Manō
Triton’s Trumpet	<i>Charonia tritonis</i>	'Ōlē
Horned Helmet	<i>Cassis cornuta</i>	Pū puhi

Initiatives identified above involving commercial aquarium fish collection received overwhelming support during the Hawai'i Administrative Rule public hearing process (Figure 2) and were adopted as a new administrative rule (HAR 13-60.4) which became effective December 26, 2013.



AQ – Aquarium White List; Ka'ohe – Pebble Beach

Figure 2. Summary of all public testimonies on the WHRFMA rule (DAR 2014a).

1.2.3.2 HAR 13-60.4

In addition to incorporating Act 306 into the Hawai'i Administrative Rules, HAR 13-60.4 identified West Hawai'i Aquarium Permit Terms and Conditions by implementing the following provisions:

- No person shall engage in aquarium collecting activities within the WHRFMA without first having been issued and possessing a West Hawai'i Aquarium Permit in addition to a valid State of Hawai'i aquarium fish permit.
- Collectors must carry either their Commercial Marine License (CML) card with both State of Hawai'i and West Hawai'i Aquarium Permit endorsements or their recreational aquarium fish permit card while collecting fish within the WHRFMA.
- In addition to applying any other penalties provided by law, the DLNR may revoke any West Hawai'i Aquarium Permit for any infraction of these rules or the terms and conditions of the permit, and any person whose permit has been revoked shall not be eligible to apply for another West Hawai'i Aquarium Permit (commercial or recreational) until one year from the date of revocation.
- Aquarium collectors (commercial and noncommercial) may take or possess only the 40 "White List" fish species.
- It is prohibited for anyone to take more than 5 Yellow Tang (*Zebrasoma flavescens*) larger than 4.5 inches in total length (TL) or more than 5 Yellow Tang smaller than 2 inches TL per day or possess more than this amount at any time while within the WHRFMA. (Note: This is called a slot limit and is meant to protect the breeding population. Yellow Tang become sexually mature at 4.5 inches TL and begin reproducing [Bushnell 2007]).
- It is prohibited for aquarium collectors to take or possess more than 5 Kole (= Goldring Surgeonfish, Yelloweye, Goldring) (*Ctenochaetus strigosus*) larger than 4 inches TL per day. Again, this measure is meant to protect the breeding population.
- It is prohibited for aquarium collectors to take or possess more than 10 Achilles Tang (*Acanthurus achilles*) of any size per day.
- It is prohibited to possess aquarium collecting gear or possess fish taken for aquarium purposes on a vessel after sunset or before sunrise without prior phone notification to the DAR Kona office. Such notification will allow the possession of more than one day's bag limit for Yellow Tang, Kole and Achilles Tang on multiple day trips.
- Aquarium collection is prohibited within FRAs, FMAs, and MLCs. Note that a new FRA has been established in South Kona at Ka'ohe Bay (Pebble Beach) where no aquarium collecting, or recreational fish feeding is allowed.

Introduction

- It is prohibited to take or possess aquarium collecting gear or fish taken for aquarium purposes on a vessel that is adrift, anchored, or moored within any of the areas prohibiting aquarium collecting.
- All aquarium collecting vessels shall be registered every year with the DAR Kona office. The current vessel identification number issued by either the DLNR or the U.S. Coast Guard (USCG) shall serve as the registration number for each vessel. After the initial vessel registration renewal can be done via mail or online.
- All aquarium collecting vessels shall permanently affix the capital letters "AQ" to both sides of the vessel. The "AQ" letters shall be no less than 6 inches high and 3 inches wide in either black or a color that contrasts with the background color of the vessel.
- Aquarium vessels must fly a "stiffened" flag or pennant from the vessel with the letter "A" as specified by the DLNR. The flag or pennant shall be displayed and clearly visible from both sides of the vessel at all times while aquarium collecting gear or collected aquarium fish, or both are onboard. The flag or pennant shall be provided at cost to West Hawai'i Aquarium Permittees.
- Aquarium vessels must display a dive flag at all times when divers are in the water.
- In the event an aquarium collecting vessel becomes inoperable while at sea, the operator of the vessel shall immediately notify the DLNR's Division of Conservation and Resources Enforcement (DOCARE) or USCG or both by VHF radio or by cellular phone.
- It is prohibited to possess or use any net or container employed underwater to capture or hold fish taken for aquarium purposes that is not labeled with the CML number (or numbers) of the person (or persons) owning, possessing, or using the equipment. Clearly mark each piece of the above gear with your CML number. There is no specific marking requirement as to size or color of lettering other than the CML number must be clearly visible and legible.
- Aquarium collectors must submit each month's daily aquarium fishing trip reports before every 10th day of the following month.
- Recreational aquarium collectors, without a valid CML, may not take more than a total of five of the White list fish specimens per person per day. Recreational aquarium collectors may not sell collected fish.
- A control date was established on August 1, 2005 to possibly limit participation in the WHRFMA commercial aquarium fishery. Persons who begin fishing in the WHRFMA commercial aquarium fishery on or after the control date will not be assured continued participation in the fishery if the DLNR establishes an aquarium limited entry program in the future. Nothing in this chapter shall prevent the DLNR from establishing another control date.
- It is prohibited to engage in or attempt to engage in SCUBA spearfishing and/or possess both SCUBA gear and a spear or speared aquatic life.

Purpose and Need

Coral/Live Rock Damage

State law prohibits the breaking or damaging, with any implement, any stony coral from the waters of Hawai'i, including any reef or mushroom coral (HAR 13-95-70). It is unlawful to take, break or damage, any implement, any rock or coral to which marine life of any type is visibly attached or affixed (HAR 13-95-71). The taking of sand, coral rubble or other marine deposits is permitted in certain circumstances. The material may not exceed one gallon per person per day, and may be taken only for personal, noncommercial purposes (HRS § 171-58.5, § 205A-44).

Fines per specimen may be imposed for each damaged coral head or colony less than one square meter in surface area or for a colony greater than one square meter in surface area, each square meter of colony surface area and any fraction remaining constitutes an additional specimen. Penalties for damage to live rock are based on each individual rock or if the violation involves greater than one square meter of bottom area, then the penalty is based on each square meter of bottom area.

No liability shall be imposed for inadvertent breakage, damage, or displacement of an aggregate area of less than one half square meter of coral if caused by a vessel with a single anchor damage incident, in an area where anchoring is not otherwise prohibited, and not more frequently than once per year; or by accidental physical contact by an individual person.

2.0 PURPOSE AND NEED

2.1 PURPOSE FOR APPLICANT'S ACTION

The purpose of the Applicant's action is to ensure that commercial aquarium fish collection allows for the lawful, responsible, and sustainable commercial collection of various fish species from nearshore habitats. The objective of the proposed action is to create a program under the DLNR which helps to facilitate the permitting process for Commercial Aquarium Permits for the island of Hawai'i including the WHRFMA.

2.2 NEED FOR APPLICANT'S ACTION

The need for the Applicant's action is to continue commercial aquarium fishers' livelihoods in compliance with all applicable laws, rules, and regulations pertaining to the industry.

2.3 PURPOSE FOR APPROVING AGENCY'S (DLNR) ACTION

The purpose of an environmental review process under the HEPA is to provide the Approving Agency (DLNR) with the framework necessary for reviewing the Applicant's action and the environmental effects of issuing Aquarium Permits for the WHRFMA. The HEPA review also provides an opportunity for the public to be involved in the DLNR's decision-making process. The DLNR can also use a properly conducted HEPA analysis to review and improve plans, functions, programs, and resources under its

jurisdiction. Furthermore, this FEA is the mechanism for recording the results of a comprehensive planning and decision-making process surrounding the Applicant's action.

The underlying purpose of the DLNR's action is to determine the level of significance that issuing Aquarium Permits for the island of Hawai'i, including the WHRFMA, may have on the environment, based on the 13 criteria listed in Section 1.2.2. The final determination would result in either a FONSI, whereby the DLNR reinstates the Aquarium Permit program, or the development of an EIS to further evaluate environmental impacts and potentially additional alternatives.

2.4 NEED FOR APPROVING AGENCY'S (DLNR) ACTION

The need for DLNR's action is the Applicant's submittal of this FEA, to which the DLNR must respond.

2.5 SCOPE OF ANALYSIS

The scope of this FEA's analysis incorporates accepted methods, regulations, and historical data to determine past influences the commercial aquarium fishery and its management have had on resources, including socioeconomic, cultural, and biological resources in order to evaluate the potential direct, indirect, and cumulative impacts that the three alternatives presented in Section 3 would have over a single annual permit period for the island of Hawai'i, including the WHRFMA. Commercial Aquarium Permits issued by DLNR under HRS §188-31 are valid for no longer than one year and, therefore, must be renewed annually. Accordingly, every year, DLNR must take an action to issue Commercial Aquarium Permits. As a result, this FEA analyzes the potential impacts of the commercial aquarium fishery based on a temporal scope of one year. As Commercial Aquarium Permits come up for renewal each year, DLNR will evaluate whether there are significant new circumstances or information relevant to environmental concerns and bearing on the commercial aquarium fishery or its impacts requiring a supplemental EA. Under this approach, any changes in resource data (e.g., increase or decrease in population estimates, unforeseen circumstances, etc.) will be addressed, as necessary, by supplemental EAs, allowing for the HEPA process to quickly recognize and address any potential issues. Section 5.0 addresses the cumulative impacts of reasonably foreseeable future commercial aquarium collection.

2.5.1 Resources Evaluated and Dismissed from Further Consideration

This FEA evaluates the impacts of three commercial aquarium fish collection alternatives on the nearshore habitat (0-600 feet; 0-100 fathoms) in which commercial aquarium fishing (or lack thereof) would take place, over a single year. During the evaluation process, it was determined that some resources typically evaluated in EA's would not be impacted by any of the alternatives under consideration. The evaluation includes past use and potential impacts by the commercial aquarium fishery because it has been a part of the baseline condition of these resources since the late 1940s. Because a significant increase in commercial aquarium fishing is not anticipated during the 12-month assessment period evaluated in this FEA, this FEA does not anticipate a significant change in the current baseline condition of these resources.

The proposed action and resulting commercial aquarium collection does not include any activities different from or in addition to those that have occurred in the past. There would be no construction of

Alternatives

permanent or semi-permanent infrastructure, no discharges into coastal, surface or ground waters, and no dredging, and no significant use of hazardous materials that could be released into the environment.

The DLNR's issuance of Aquarium Permits is not anticipated to result in significant beneficial or adverse impacts to water and air quality, geology and soil resources, aesthetics, noise, vegetation, terrestrial wildlife and avian species, threatened and endangered species, land use, public health and safety, communications, historical resources, transportation, utilities, or population and demographics from the current baseline condition, therefore, these resources will not be evaluated further.

2.5.2 Resources Retained for Further Analysis

The following resources could be impacted by the alternatives under consideration. Current baseline conditions of these resources are presented in Section 4.0 and impacts to these resources are evaluated in Section 5.0 of this FEA:

- Socioeconomic Resources
- Cultural Resources
- Physical Resources
 - Climate
- Biological Resources
 - White List Species
 - Non-White List Species
 - Hawai'i Species of Greatest Conservation Need
 - Reef Habitat

3.0 ALTERNATIVES

Reasonable alternatives include those that are practical or feasible from cultural, scientific, technical, and economic perspectives. The HEPA recommends that applicants consider and objectively evaluate reasonable alternatives to the preferred alternative and briefly explain the basis for eliminating any alternatives that were not retained for detailed analysis.

The DLNR has been, and continues to work with stakeholders (e.g., public, various fishing and tourism industries, local governments) since the 1970's to ensure the commercial aquarium fishery is environmentally sustainable and prevents degradation of fish populations and the habitats in which they occur. As a result, many aspects of the fishery have changed over the past 40+ years due to the various alternatives recommended by stakeholders and implemented by the DLNR. The Applicant has no legislative or regulatory authority and cannot create, eliminate, or alter conservation areas (e.g., MPAs, FRAs, MLCDs); create, eliminate, or alter current regulations (e.g., bag and size limits, season length, permit term); or change reporting requirements. Despite this, during the public comment period on the Draft EA, in response to DNLN concerns and in coordination with the DNLN, the Applicant developed an additional alternative, one which would require regulation creation by DLNR. Based on discussion with the DNLN, evaluation of the impacts of the alternatives, and public comment, the Applicant has selected the new alternative as the Preferred Alternative.

Alternatives

The three alternatives retained for analysis include:

- **Alternative 1: No Action Alternative**
 - Current court order would remain in place and no Aquarium Permits would be issued.
- **Alternative 2: Status Quo Alternative (Programmatic Issuance of Aquarium Permits for the Island of Hawai'i)**
 - The DLNR would issue Aquarium Permits for the island of Hawai'i under existing regulation set forth in HRS 188-31 (Section 1.2.1). These rules and regulations include restrictions on equipment, restrictions on access to various areas, bag limits on various collected fish species, collection in the WHRFMA restricted to 40 White List species only, and reporting requirements.
- **Alternative 3: Achilles Tang Conservation Alternative (Proposed Action and Preferred Alternative): Programmatic Issuance of Aquarium Permits for the Island of Hawai'i with an Additional Conservation Measure Limiting Achilles Tang Catch for all Fisheries within the WHRFMA.**
 - The DLNR would issue Aquarium Permits for the island of Hawai'i under existing regulation set forth in HRS 188-31 (Section 1.2.1). These rules and regulations include restrictions on equipment, restrictions on access to various areas, bag limits on various collected fish species, and reporting requirements. Additionally, the daily bag limit for commercial aquarium collection of Achilles Tang within the WHRFMA would be reduced from 10 per day to 5 per day, and a daily bag limit of 5 per day would be set for all other fisheries (e.g., recreational and non-aquarium commercial) within the WHRFMA.

These alternatives were evaluated based on their capacity to meet the purpose and need of the Approving Agency's action (Sections 2.3 and 2.4). The potential effects on the environment for each alternative are described and analyzed in Section 5.0; Environmental Consequences.

3.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the court order would remain in place and no Commercial Aquarium Permits would be issued for the island of Hawai'i including the WHRFMA. The No Action Alternative meets the DLNR's objectives to ensure an applicant's actions do not lead to degradation of fish populations and the habitats in which they occur in the context of commercial aquarium collection alone (i.e., does not address impacts from other Hawaiian fisheries and influences discussed in Sections 4.0 and 5.0). Under the No Action Alternative, Commercial Aquarium Permits would not be issued for the island of Hawai'i including the WHRFMA and commercial collection of aquarium fish would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods other than fine-mesh nets would continue. However, the No Action Alternative does not meet the Applicant's purpose and need to

continue fishers' livelihoods participating in lawful, responsible, and sustainable commercial collection of approved fish species from nearshore habitats (0-600 feet; 0-100 fathoms).

3.2 STATUS QUO ALTERNATIVE

The Status Quo Alternative is based on the many years of public involvement, political involvement, and scientific research pertaining to the commercial aquarium fishery. Although this may be the first FEA written for the commercial aquarium fishery (or any fishery in the State of Hawai'i), various alternative approaches based on public, government, and scientific input have been implemented and studied since the 1970's (noted throughout this FEA).

Under the Status Quo Alternative the DLNR would begin issuing new Aquarium Permits, thereby allowing commercial aquarium fish collection on the island of Hawai'i, including the WHRFMA, to resume. Permittees would abide by all existing rules and regulations set forth in HRS 189-2,3 (Commercial Marine Permit), HRS-188-31 (Section 1.2.1), governing Commercial Aquarium Permit use, and would obtain a West Hawai'i Aquarium Permit as required under HAR 13-60.4 (Section 1.2.3.2). These rules and regulations include restrictions on equipment, restrictions on access to various areas, bag limits on various collected fish species, collection in the WHRFMA restricted to 40 White List species only, and reporting requirements.

3.3 ACHILLES TANG CONSERVATION (PREFERRED) ALTERNATIVE

Under the Achilles Tang Conservation Alternative, the DLNR would begin issuing new Aquarium Permits, thereby allowing commercial aquarium fish collection on the island of Hawai'i, including the WHRFMA, to resume. Permittees would abide by all rules and regulations set forth in HRS 189-2,3 (Commercial Marine Permit), HRS-188-31 (Section 1.2.1), governing Commercial Aquarium Permit use, and would obtain a West Hawai'i Aquarium Permit as required under HAR 13-60.4 (Section 1.2.3.2). These rules and regulations include restrictions on equipment, restrictions on access to various areas, bag limits on various collected fish species, collection in the WHRFMA restricted to 40 White List species only, and reporting requirements. In addition, daily bag limit for commercial aquarium collection of Achilles Tang within the WHRFMA would be reduced from 10 per day to 5 per day, and a daily bag limit of 5 per day would be set for all other fisheries (e.g., recreational and non-aquarium commercial) within the WHRFMA.

The Achilles Tang Conservation Alternative is based on the best available science, supports the DLNR's purpose to ensure Applicant's Actions do not lead to degradation of fish populations and the habitats in which they occur in the context of commercial aquarium collection, and supports the Applicant's purpose and need to continue fishers' livelihoods participating in the lawful, responsible, and sustainable commercial collection of various fish species from nearshore habitats.

4.0 AFFECTED ENVIRONMENT

The affected environment is the area and its resources (i.e., socioeconomic, cultural, physical, biological) potentially impacted by the proposed action and the alternatives under consideration. The purpose of

describing the affected environment is to define the current baseline of conditions in which the impacts would occur. To make an informed decision about which alternative to select, it is necessary to first understand which resources would be affected and to what extent each alternative would result in changes from the baseline. This section attempts to provide the baseline for this understanding. Relative to the proposed action, the affected environment includes nearshore habitats from a depth of 0-600 feet (0-100 fathoms) along the coast of the island of Hawai'i, including the WHRFMA, although most fishers collect the majority of fish at depths between 30-70 feet (5-11.7 fathoms), with minimal collecting beyond this range.

Commercial aquarium fish collection has been taking place in Hawaiian waters since the late 1940s. In 1953, the territorial government of Hawai'i enacted Act 154, which authorized the Board of Agriculture and Forestry to establish a permit system for the use of fine-mesh nets and traps for the taking of aquarium fish (DAR 2014a). Beginning in 1973, collectors were required to report their monthly catch on a detailed aquarium fish catch report. As of 2014, Aquarium Permit holders are required to keep daily trip reports and submit on a monthly basis. Since 1999 when FRA's were established, the number of commercial aquarium fishers working in West Hawai'i has ranged from 24-63, and in East Hawai'i from <3-18 (DAR 2018a). Permitted commercial aquarium fishing has been a part of the socioeconomic, cultural, physical, and biological resources for decades and is considered a part of the baseline condition of the affected environment.

The DLNR's mission statement is to 'Enhance, protect, conserve and manage Hawai'i's unique and limited natural, cultural, and historic resources held in public trust for current and future generations of the people of Hawai'i nei, and its visitors, in partnership with others from the public and private sectors.' In pursuit of this mission, the DLNR has compiled, analyzed, and reported on the many facets of Hawai'i's socioeconomic, cultural, physical, and biological resources that make up the affected environment. The following sections rely heavily on the DLNR's *Hawai'i's Comprehensive Wildlife Conservation Strategy* (CWCS; Mitchell et al. 2005) and the DLNR's Hawai'i's State Wildlife Action Plan (SWAP; DLNR 2015), with numerous other sources cited as appropriate.

4.1 SOCIOECONOMIC RESOURCES

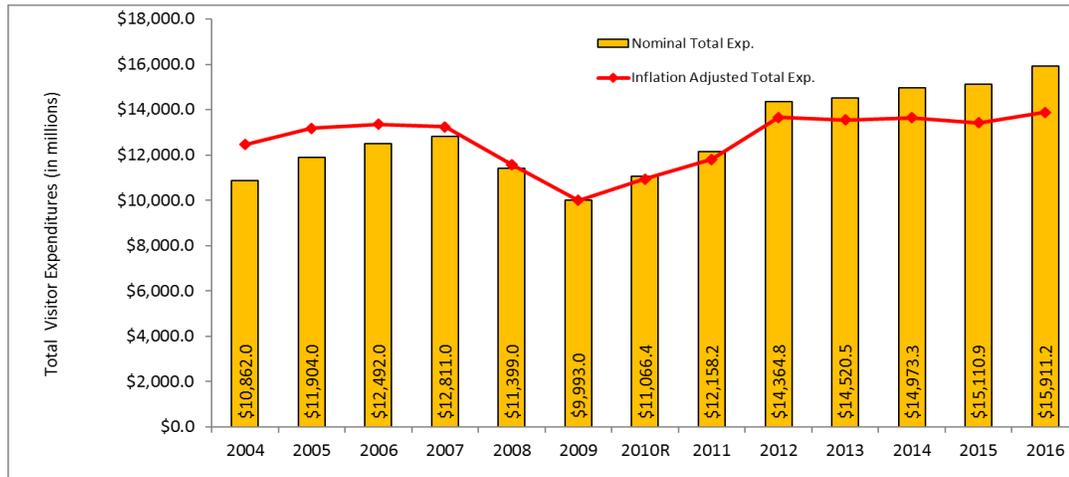
The state of Hawai'i has four local governments: The City and County of Honolulu (island of O'ahu and the Northwestern Hawaiian Islands), the County of Kaua'i (islands of Kaua'i and Ni'ihau), the County of Maui (islands of Maui, Moloka'i, Lāna'i and Kaho'olawe), and the County of Hawai'i (island of Hawai'i). Hawai'i also has a fifth county, Kalawao County, which does not have a separate government unit (Mitchell et al. 2005). Kalawao County covers the former Hansen's disease settlement at Kalaupapa (Moloka'i) and is managed by the National Park Service (NPS) under a cooperative agreement with the State Department of Health (Mitchell et al. 2005).

The population of the island of Hawai'i was estimated at 185,079 in 2010. By 2016, the population is estimated to have grown by 7.2% to 198,449 (HDBEDT 2017). Of the approximately 8.2 million visitors to the state in 2016, 17.6% (1.55 million people) spent time on the island of Hawai'i and 8.6% of those visitors stayed entirely on the island of Hawai'i. Fifteen percent of visitors spent time in West Hawai'i while 6.2% spent time on the east side (HDBEDT 2017).

Much of the state's economy is based on the island's coastal and marine resources. Tourism accounts for the majority of the state's economy, with a significant portion of the tourist activities associated with beaches and marine wildlife (DLNR 2015). Coastal development and land values have both increased with the growth in tourism. In 2002, the Hawai'i Coral Reef Initiative funded a study regarding the economic valuation of the coral reefs of Hawai'i, where the value of coral reefs to the Hawai'i economy was estimated to be about \$380 million dollars per year (DLNR 2015). In 2001, Cesar et al. documented the annual recreational value of the coral reefs of the Hawaiian reefs for snorkelers and divers was estimated to be \$281 million and \$44 million, respectively. Although the direct expenditure per diver is much larger than the direct expenditures of snorkelers, the overall value related to the latter group is much larger due to their large numbers. According to the 2017 National Oceanic and Atmospheric Administration (NOAA) Report on the Ocean and Great Lakes Economy of the United States, in 2014 (most recent data), Hawai'i employed 626,146 people and generated \$28.3 billion in wages and \$76.4 billion in gross domestic product. Hawai'i's ocean economy then employed 111,673 people and generated \$3.9 billion in wages and \$7.4 billion in gross domestic product. The ocean economy accounted for 17.8 percent of Hawai'i's employment, 13.7 percent of its wages, and 9.7 percent of its gross domestic product (NOAA 2017). Commercial fish landings in Hawai'i have increased annually since 2006 and NOAA reported total landings in 2013 were valued near \$108 million dollars (DLNR 2015).

Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017). When adjusted for inflation, total visitor spending was up 3.5% from 2015 (Figure 3). A total of 8,934,277 visitors came by air or by cruise ship to the state, up 2.9% from the previous record of 8,679,564 visitors in 2015. Total visitor days rose 2% compared to 2016. The average spending per day by these visitors (\$197 per person) was also higher than 2015 (\$191 per person; HDBEDT 2017).

Arrivals by airlines in 2016 grew 3% to 8,821,802 visitors. Additionally, there were 112,475 visitors who came to the islands by cruise ship, but this was down 3.5% from 2015 due to fewer out-of-state cruise ships that visited the islands (HDBEDT 2017).



Note: Implicit price deflator (2009=100)
 Source: 2016 State of Hawai'i Data Book Table 7.35.

Figure 3. Total visitor spending: nominal and real 2004-2016 (HDBEDT 2017).

Total Spending by Category (HDBEDT 2017):

- Lodging, the largest spending category by all visitors to Hawai'i, increased 6.1% to \$6.73 billion and made up 42.3% of total visitor spending in 2016.
- Food and beverage, the second largest category, rose 6.4% to \$3.27 billion or 20.6% of total visitor spending.
- Shopping expenses of \$2.24 billion was up 1.5% from 2015.
- Spending on transportation (+11.4% to \$1.54 billion) and entertainment and recreation (+5.8% to \$1.41 billion) also increased from the previous year.
- Supplemental business spending of \$118.1 million was a decrease of 11.9% compared to 2015. These are additional business expenses spent locally on conventions and corporate meetings by out-of-state visitors (i.e., costs on space and equipment rentals, transportation, etc.) that were not included in personal spending.

The military has a significant presence in Hawai'i with large Naval installations located on estuarine and coastal areas such as Pearl Harbor and Kāne'ohe Bay on O'ahu, the Pacific Missile Range Facility on the south shore of Kaua'i, and the Pōhakuoloa Training Area on the Hawai'i, the largest United States Department of Defense installation in the state of Hawai'i, or anywhere in the Pacific.

Agriculture has always had a special place in Hawai'i history and continues to be an important industry, generating \$2.9 billion to the state's annual economy, and directly and indirectly providing 42,000 jobs (HDA 2013). The plantation era witnessed the boom decades of the sugar and pineapple industries, expanding over thousands of acres of prime agricultural lands. Now, with the decline of the sugar and pineapple industries, these agricultural lands are returning to a new era of small farms growing diversified agricultural products (HDA 2013). Crops such as specialty exotic fruits, coffee, macadamia nuts, flowers

and foliage not only provide fresh produce and flowers to Hawai'i's markets, but also have become major exports to destinations around the world. The early fishponds have evolved into high-tech aquaculture ventures, farming from the sea varieties of fish, shrimp, lobster, abalone, and seaweed (HDA 2013).

4.1.1 Socioeconomic Aspects of the Commercial Aquarium Fishery

Fishers on the island of Hawai'i often perform day or short overnight trips, operate individually or in small groups of two or three people, and use SCUBA and barrier nets (nets used to exclude, contain, or direct fish) to capture fish (Stevenson et al. 2011). Most aquarium fishers are between the ages of 40 and 60 years, have remained active in the fishery for more than 20 years, and fish approximately 3–4 days per week (Stevenson et al. 2011). Commercial aquarium fishers are required to report their monthly catch on an aquarium fish catch report separate from, and more detailed than, the CML reports.

In 2017, the commercial aquarium fishery on the island of Hawai'i reported landings near \$1.4 million, with more than \$1.29 million coming from the WHRFMA (DAR 2018a). Since 2000, the commercial aquarium fishery on the island of Hawai'i has averaged annual landings valued at approximately \$1.4 million, with a low of approximately \$701,775 (inflation-adjusted 2017 dollars) in 2001 and a high of \$1,867,475 (inflation-adjusted 2017 dollars) in 2015 (Table 3; DAR 2018a). It should be noted that the dollar value of these fisheries represents only the *ex-vesse/* value - what the fishers are paid for their catch and does not include the value which would be generated by additional dealer and retail sales. The actual economic value of the catch is thus substantially greater than the *ex-vesse/* value. A study done in 1994 found that the DAR reported total average value for FY 1993/FY 1994 saw only \$819,957 (Miyasaka 1994), while analysis in 1993 by an aquarium trade group (Hawai'i Tropical Fish Association) estimated the total sales of Hawaiian aquarium fish (including freight and packaging) to be nearly 5 times this, at \$4.9 million (Walsh et al., 2003).

Table 3. Number of Aquarium Permits, reports, and fishery value on the island of Hawai'i since 2000. n.d. = Not Disclosed (DAR 2018a).

Fiscal Year ¹	WHRFMA				East Hawai'i			
	Number of Commercial Aquarium Permits	Number of Permits Reporting	Total Value	Total Value Adjusted for Inflation ²	Number of Commercial Aquarium Permits	Number of Permits Reporting	Total Value	Total Value Adjusted for Inflation ²
2000	24	25	\$491,173	\$699,166	6	3	\$11,832	\$16,842
2001	26	23	\$506,749	\$701,776	8	0	\$0	\$0
2002	37	19	\$529,182	\$721,029	n.d.	n.d.	n.d.	n.d.
2003	30	22	\$666,153	\$887,432	9	0	\$0	\$0
2004	53	30	\$866,630	\$1,124,555	n.d.	n.d.	n.d.	n.d.
2005	41	34	\$1,168,265	\$1,466,283	11	3	\$25,263	\$31,707
2006	63	34	\$1,459,004	\$1,773,964	11	6	\$74,519	\$90,606
2007	61	40	\$1,065,093	\$1,259,154	14	4	\$33,648	\$39,779
2008	52	31	\$1,308,629	\$1,489,859	17	9	\$100,304	\$114,195
2009	55	30	\$1,159,746	\$1,325,072	13	8	\$84,022	\$96,000
2010	60	36	\$1,582,644	\$1,779,074	12	7	\$30,062	\$33,793

2011	60	42	\$1,473,530	\$1,605,732	13	6	\$41,238	\$44,938
WHRFMA					East Hawai'i			
Fiscal Year ¹	Number of Commercial Aquarium Permits	Number of Permits Reporting	Total Value	Total Value Adjusted for Inflation ²	Number of Commercial Aquarium Permits	Number of Permits Reporting	Total Value	Total Value Adjusted for Inflation ²
2012	48	28	\$1,504,487	\$1,606,226	16	7	\$79,067	\$84,414
2013	45	26	\$1,560,517	\$1,641,994	15	9	\$68,234	\$71,797
2014	43	20	\$1,570,057	\$1,625,661	18	7	\$131,086	\$135,728
2015	38	19	\$1,701,631	\$1,759,805	13	4	\$104,110	\$107,669
2016	37	19	\$1,582,011	\$1,615,713	15	4	\$80,441	\$82,155
2017	57	21	\$1,290,314	\$1,290,314	18	4	\$91,790	\$91,790
Average	46	28	\$1,193,656	\$1,354,045	13	5	\$59,726	\$65,088

¹Fiscal year runs from July 1 through June 30

²<http://www.usinflationcalculator.com/>, adjusted for 2017 values

Although specific export data do not exist for the aquarium fishery, it is clear that most of the aquarium catch is shipped out of the state to dealers on the mainland United States, Europe, and Asia (Dierking 2002). This is neither surprising nor atypical for commercial fisheries in Hawai'i (DAR 2014a). For example, seafood exports of various Hawaiian species exceed 3.7 million pounds annually (Loke et al. 2012).

On the island of Hawai'i, the total aquarium catch and its value have continued to increase overall since the FRAs were established in 2000, while the number of reporting fishers has fluctuated (Table 3; DAR 2018a). Since FRAs were established, overall catch has not declined and recent work (Stevenson et al. 2013) has indicated that the economic status of West Hawai'i aquarium collectors has significantly improved since the FRA network was implemented (DAR 2014a).

Of the 40 fish species which can now be collected in West Hawai'i, over 90% of the economic value between 2000 and 2017 was from four species: the Yellow Tang which made up 75.3% of the total value; the Achilles Tang which made up 7.1% of the total value; the Kole which made up 5.6% of the total value; and, the Black Surgeonfish (*Ctenochaetus hawaiiensis*; = Chevron Tang) which made up 4.9% of the total value. The remaining 36 species made up the remaining 7.2% of value during this time period (DAR 2018a).

4.2 CULTURAL RESOURCES

Commercial aquarium collection occurs in the ocean in nearshore habitats (0-600 feet; 0-100 fathoms). Cultural, historic, and archaeological resources were evaluated within the nearshore habitats by consulting with knowledgeable parties, including Native Hawaiian fishers and the Hawai'i Hunting, Farming and Fishing Association (HFFA), which is an independent organization that represents Native Hawaiians and other parties engaged in hunting and fishing in Hawai'i. Additionally, texts, including those containing oral histories of cultural practices related to the ocean and fishing, were consulted.

Affected Environment

Based on consultation with stakeholders and a review of texts containing oral histories, there are no archaeological or historical resources within the subject area that would be impacted by the proposed action. However, these sources did reveal that the ocean, its ecosystem, and the practice of fishing were and continue to be important in Native Hawaiian culture and tradition.

The belief system of Native Hawaiians links people with all living and non-living things (Mitchell et al. 2005). Under this belief system, because all components of ecosystems were descended from Wākea (sky father) and Papahānaumoku (earth mother) and their offspring, *kini akua* (multitude of gods), both living and non-living elements possess spiritual qualities and *mana* (spiritual power). As such, Native Hawaiians, as *kanaka maoli* (native people), are guardians of these ecosystems and their well-being is directly related to the well-being of these ecosystems (Mitchell et al. 2005).

For example, areas such as *wao akua* (upland forests) are sacred places, the realm of the gods (Mitchell et al. 2005). Native Hawaiian land ownership and resource management were often based on a unit called the *ahupua'a*, which typically corresponded with what we today call watershed areas. This understanding of the link from uplands to the ocean was ahead of its time (Mitchell et al. 2005). *Kapu* (taboo) systems that limited certain classes or sexes from eating certain animals or fishing in certain places or at certain times may have aided in the conservation of some species (e.g., only men were allowed to eat *honu* (green sea turtle) and only royalty could eat certain fishes) (Mitchell et al. 2005).

Additionally, native species in Hawai'i play a significant role in Native Hawaiian culture. Historically, feathers from forest birds were used to make elaborate capes, leis, and helmets for the *ali'i* (royalty). Whale ivory, shells, and shark's teeth were used for necklaces and other adornments (Mitchell et al. 2005). Fish and sea turtle bones were used as kitchen implements, tools, and fishhooks, while sea turtle shells and scutes were used as containers. *Koa* (*Acacia koa*) trees were used for the ocean-voyaging canoes (Mitchell et al. 2005).

Native wildlife also play an important role in Native Hawaiian culture as many species such as the *pueo* (*Asio flammeus sandwichensis* [Hawaiian short-eared owl]), *'io* (*Buteo solitarius* [Hawaiian hawk]), *'elepaio* (*Chasiempis sandwichensis* [Hawaiian elepaio]), *'alalā* (*Corvus hawaiiensis* [Hawaiian crow]), sea turtles (e.g., *Caretta* spp., *Chelonia* spp., *Dermochelys* spp., *Eretmochelys*, and *Lepidochelys* spp.), and sharks (*Hexanchus* spp.) are believed to be *'aumakua* (ancestors or guardians) of certain Hawaiian families (Mitchell et al., 2005). Hawaiian names have been given to many of the native wildlife and they have been incorporated into *oli* (chants) and *mo'olelo* (legends).

Native Hawaiian culture also contains specific customs, beliefs, and practices related to fisheries and aquatic resources (Maly and Maly 2003). Historical narratives include specific references to cultural sites, such as *ko'a* (on shore and in ocean fishing shrines and station markers), resources procurement sites (both on land and in the water), and the traditional and customary laws governing the care for, and use of, the wide range of resources from the uplands to the ocean (Maly and Maly 2003). These historical accounts demonstrate that Native Hawaiians worked the land, water, and marine resources and, through a system of religious-based fisheries management protocols, were able to sustain themselves through the natural resources of the islands (Maly and Maly 2003). Native Hawaiian traditions surrounding aquatic resources demonstrate the cultural-historical importance of fisheries and land in the lives of Native

Hawaiians and form the basis for Native Hawaiian's cultural attachment to the ocean and fishing today (Maly and Maly 2003).

Historical accounts demonstrate that Native Hawaiians were expert fishermen, and that fishing was a skill passed down generation to generation (Maly and Maly 2003). Native Hawaiians relied on fishing in the ocean for subsistence and consumption and employed traditional fishing methods that included the use of nets, hooks and lines, baskets, and hands (Maly and Maly 2003). In addition to serving as a source of food, aquatic resources and the practice of fishing were also linked to religious practices. Fishing was associated with religious ceremonies and fishermen traditionally worshipped fishing gods and goddesses and performed rituals related to certain species of fish (Maly and Maly 2003).

Numerous other examples of the use of native plants and animals in both daily life and ritual exist. In present day Hawai'i, the link between Native Hawaiian culture and native species has not been lost and continues to be practiced in belief systems, as well as in traditional practices such as gathering of native plants for hula, traditional medicines, carving, weaving, and ceremonies (Mitchell et al. 2005).

Today, Native Hawaiian teachings play an increasing role in natural resource management, especially in areas of cultural significance like Kaho'olawe or Wao Kele o Puna (island of Hawai'i). The CWCS recognizes that the State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised rights of Native Hawaiians to the extent feasible, in accordance with Public Access Shoreline Hawai'i versus Hawai'i County Planning Commission and subsequent case law (Mitchell et al., 2005).

4.2.1 Cultural Aspects of the Commercial Aquarium Fishery

From Jokiel et al. (2011):

For the past century Hawai'i has been dominated by a "Western" model of marine environmental management. Recently, however, there has been a renewed interest in the traditional management practices of ancient Hawaiians. Throughout Hawai'i, a growing cultural, sociological, and scientific movement is working to investigate and revive some of these traditional management tools and to integrate them with modern scientific methodology. The native islanders had devised and implemented every basic form of what are now considered modern marine fisheries conservation measures centuries ago, long before the need for marine conservation was even recognized in Western nations (Johannes 1982). Traditional restrictions on fishing in Hawai'i were achieved by the use of closed seasons, closed areas, size restrictions, gear restrictions, and restricted entry. Additional social, cultural, and spiritual controls strengthened the conservation ethic under the old system. Ancient Hawaiians used a holistic approach that we might now recognize and strive for as integrated coastal management. Bridging the gap between traditional management and Western science represents a challenge to researchers, government agencies, resource managers, cultural practitioners and organizations, and to the people of Hawai'i.

Act 306 and formation of the WHFC (Section 1.2.3) played a significant role in bridging that gap by creating a new aquarium fish management plan that is much closer to the traditional Hawaiian system.

Commercial aquarium fish collection has been on-going in Hawai'i since the late 1940's, with most fishers active in the fishery for more than 20 years and many active for 35 – 40 years. Protecting and preserving the reef, the fish, and the cultural heritage of both Hawai'i and the fishery, is in their best personal and business interest. Commercial aquarium fish collection is not a part of Native Hawaiian culture; however, Native Hawaiians do participate in and support the fishery and Hawaiian culture has been a significant aspect of the fishery's management since the 1970's. Although the process has been contentious at times, the WHFC has been successful. See Section 1.2.3.1 for a further description of their contributions and accomplishments.

4.3 PHYSICAL RESOURCES

The Hawaiian Archipelago is composed of 8 main islands and approximately 124 smaller islands, reefs, and shoals spanning over 1,500 miles that vary in size from fractions of acres to thousands of square miles (Mitchell et al. 2005). The Archipelago was formed over the last 70 million years through volcanic eruptions from a relatively stationary hotspot beneath the slowly moving seafloor. The island of Hawai'i is the youngest island, with island age increasing to the northwest as the Pacific plate carries the older islands away from the hotspot (Mitchell et al. 2005). Millions of years of erosion, subsidence, and reef building resulted in the formation of the atolls which form the Northwestern Hawaiian Islands and the submersion under the sea surface of the seamounts which used to be islands (Mitchell et al. 2005).

Located over 2,000 miles from the nearest continent, Hawai'i is the most remote island chain in the world (Mitchell et al. 2005). Despite its relatively small area (less than 4.1 million acres), an elevation range from sea level to 13,796 feet results in Hawai'i containing all the major known ecological zones. With a wide temperature range due to the elevational gradient and with average annual rainfall ranging from less than 15 inches to over 480 inches per year, Hawai'i displays most of the earth's variation in climatic conditions. Finally, Hawai'i possesses many natural wonders: the most active volcano in the world, the wettest place on earth, the tallest seacliffs, and extensive coral reefs (Mitchell et al. 2005).

Due to the large number and the varied geology of the islands, Hawai'i has diverse marine habitats, which range from estuaries, tidepools, sandy beaches, and seagrass beds to nearshore deep waters, extensive fringing and atoll reef systems, and smaller barrier reef systems (DLNR 2015). However, introduced mangroves have altered native coastal habitats in a number of places. The distribution of marine ecosystems in Hawai'i is a result of island age, reef growth, water depth, exposure to wave action, geography, and latitude. The marine habitats found on each island depend on the type of island: large and young, mature, or drowned islands and seamounts (DLNR 2015). Large and young islands such as the island of Hawai'i have recent lava flows and few, living structural coral reefs. Beaches are rocky except around bays, and drowned reefs may be found in deep waters or off parts of the east coast of Maui. Mature islands, such as O'ahu and Kaua'i in the Main Hawaiian Islands (MHI) and Nihoa and Necker in the Northwestern Hawaiian Islands (NWHI) are the most diverse, with habitat types ranging from estuaries and sandy beaches to rocky beaches and fringing and barrier reefs to lagoons with patch or pinnacle reefs. Drowned islands, such as atolls in the rest of the NWHI, are the remains of volcanic islands with habitats ranging from coral islets and benches to caves and terraces along the slope of the atoll (DLNR 2015).

4.3.1 Climate

Features of Hawai'i's climate include mild temperatures throughout the year, moderate humidity, persistence of northeasterly trade winds, significant differences in rainfall within short distances, and infrequent severe storms (Price 1983). For most of Hawai'i, there are only two seasons: "summer," between May and October, and "winter," between October and April. Hawai'i's length of day and temperature are relatively uniform throughout the year. Hawai'i's longest and shortest days are about 13.5 hours and 11 hours, respectively, compared with 14.5 and 10 hours for Southern California and 15.5 hours and 8.5 hours for Maine (Price 1983). Uniform day lengths result in small seasonal variations in incoming solar radiation and, therefore, temperature. On a clear winter day, level ground in Hawai'i receives at least 67% as much solar energy between sunrise and sunset as it does on a clear summer day. By comparison the percentages are only 33 and 20 at latitudes 40 and 50 degrees respectively (Price 1983).

Over the ocean near Hawai'i, rainfall averages between 25-30 inches per year. The islands receive as much as 15 times that amount in some places and less than one third of it in others. This is caused mainly by orographic or mountain rains, which form within the moist trade wind air as it moves from the sea over the steep and high terrain of the islands (Price 1983). Over the lower islands, the average rainfall distribution resembles closely the topographic contours. Amounts are greatest over upper slopes and crests and least in the leeward lowlands. On the higher mountains, the belt of maximum rainfall lies between 2,000-3,000 feet and amounts decrease rapidly with further elevation. As a result, the highest slopes are relatively dry (Price 1983). Another source of rainfall is the towering cumulus clouds that build up over the mountains and interiors on sunny calm afternoons. Although such convective showers may be intense, they are usually brief and localized. Hawai'i's heaviest rains are come from winter storms between October and April. While the effects of terrain on storm rainfall are not as great as on trade wind showers, large differences over small distances do occur, because of topography and location of the rain clouds. Differences vary with each storm. Frequently, the heaviest storm rains do not occur in areas with the greatest average rainfall. Relatively dry areas may receive, within a day or a few hours, totals exceeding half of their average annual rainfall (Price 1983). The leeward and other dry areas obtain their rainfall mainly from a few winter storms. Therefore, their rainfall is usually seasonal and, their summers are dry. In the wetter regions, where rainfall comes from both winter storms and trade wind showers, seasonal differences are much smaller (Price 1983).

At the opposite extreme, drought is not unknown in Hawai'i, although it rarely affects an entire island at one time. Drought may occur when there are either no winter storms or no trade winds (Price 1983). If there are no winter storms, the normally dry leeward areas are hardest hit. A dry winter, followed by a normally dry summer and another dry winter, can have serious effects. The absence of trade winds affects mostly the windward and upland regions, which receive a smaller proportion of their rain from winter storms (Price 1983).

The waters surrounding Hawai'i are affected by seasonal variations in climate and ocean circulation. The surface temperature of the oceans around Hawai'i follow a north-south gradient and range from 75°F in the MHI to 68°F to 72°F in the NWHI in winter and spring to 79°F - 81°F throughout all the islands in the late summer and fall (DLNR 2015). The depth of the thermocline, where water temperature reaches 50°F,

is 1,500 feet northwest of the islands and 1,000 feet off the island of Hawai'i. Surface currents generally move east to west and increase in strength moving southward (DLNR 2015). The seas are rougher between islands than in the open ocean, because wind and water are funneled through the channels. Waves generated by north Pacific low-pressure systems are larger in the winter months than in the spring and are generally bigger on the northern shores of the islands than the southern shores. Marine organisms have adapted to these general climatological and oceanographic conditions (DLNR 2015).

Climate and oceanographic indicators highlight long-term trends and recent anomalous conditions in West Hawai'i's natural environment. The El Niño Southern Oscillation (ENSO), an irregular, large-scale climate phenomenon that drives changes in regional oceanic and atmospheric conditions, has shifted over the last four decades towards increased frequency and severity in El Niño conditions, with the recent 2015 El Niño as one of the strongest on record (Gove et al. 2016). Rainfall, which can influence salinity, temperature, sediment load, and nutrient concentrations in the marine environment, has been at or below the long-term average over the past 15 years while the intensity of short-term events has increased over the same time period. Long-term sea level, an important indicator for coastal erosion and flooding, is rising by an estimated 0.15 inch per year and is expected to reach 1.6 feet higher than present day levels by 2100. Sea surface temperature, an indicator of regional and climatic forcing that is highly influential to a myriad of ecological processes, was anomalously warm in recent years and reached a record level of thermal stress in September 2015, resulting in widespread and severe coral reef bleaching in West Hawai'i (Gove et al. 2016).

4.3.2 Physical Aspects of the Commercial Aquarium Fishery

Fishers typically interact with physical resources within recreational dive limits (RDL), generally from 35-70 feet deep (BIAAF, pers. comm.). Deeper waters are fished to a lesser extent, in depths beyond RDL (130 feet). Habitats most often fished are shallow water reefs consisting of rich coral growth over rocky substrate. These reefs can be adjacent to the shoreline or apart and isolated far offshore, with the distance usually dictated by how fast the bathymetric relief occurs. Deep water fish are caught off the edge (ledge) of the reefs where the depth drops off rapidly. Coral cover diminishes and typically the habitat consists of rocks and sand.

Aquarium fish collection is generally carried out by divers equipped with some form of underwater breathing apparatus (e.g., SCUBA, surface supplied air, rebreather equipment). Most fishing activity occurs off of a boat, although some shore diving does occur infrequently. Divers use hand nets, usually in combination with the placement of short, bottom-set barrier nets. Nets are typically 30 feet in length and 6 feet in height. Sometimes even smaller fence nets are used. Most often the netting is considered "fine" with a stretched mesh size less than 1 inch. The net is always made of monofilament. Other gear may include "poker sticks" (i.e., lightweight fiberglass poles used to herd fish), catch baskets or keeps (i.e., containers into which catch is transferred).

Once the fisher(s) reaches the bottom he/she quickly identify fish of interest. Fish are typically gathered into groups utilizing poker sticks to move fish along the reef until a satisfactory number have accumulated. At this point, the fisher with the barrier net looks for a natural demarcation in the reef (e.g., strip of sand or rubble) to set the net. The net is set in a "V" formation to corral the fish as they are

advanced into the net. The net is pulled back, halfway up creating a “pocket” and hooked onto bare substrate with some sort of fastener (e.g., rubber band). At this point the net is set and the fisher circles back on the gathered fish. The fish are then directed to the net and into the pocket. From the pocket, the fish are either scooped with a hand net, or collected by hand and transferred into a catch basket. All incidental catch is released immediately, and the net is gathered up. At the end of the dive the catch baskets are clipped onto a line suspended off the boat for a slow decompression.

4.4 BIOLOGICAL RESOURCES

Because of Hawai‘i’s geographical isolation, many of its coastal and marine species are endemic (i.e., native or restricted to a certain country or area) to the Hawaiian Archipelago (including Johnston Atoll). Approximately 15 to 25% of the marine species are endemic to the Hawaiian Archipelago, one of the largest proportions of marine endemism for any island chain in the world (Randall 2007, DLNR 2015). Of the 612 known nearshore fish species in Hawai‘i, 25% are endemic to the Hawaiian Archipelago (Randall 2007). Yet because of the isolation, Hawai‘i has relatively low marine species richness (i.e., diversity), with approximately 580 shallow reef fish species in contrast to areas of the Pacific further west with thousands of species. In total though, Hawai‘i still has over 6,000 marine species (DLNR 2015).

Toonen et al. (2011) conclude that the Hawaiian Archipelago is not a single, well-mixed marine community, but rather there are at least four significant multi-species barriers to dispersal along the length of the island chain, and that species that appear capable of extensive dispersal, such as Yellow Tang and Kole, show significant population differentiation within the Hawaiian Archipelago. In addition, there are significant consensus genetic breaks that restrict gene flow between islands, including a barrier between the island of Hawai‘i and the rest of the Main Hawaiian Islands (MHI).

4.4.1 White List Species

Concerns over continued expansion of the commercial aquarium fishery and its effects in the Open Areas prompted DLNR in 2013 to establish a ‘White List’ of 40 species which can be taken by aquarium fishers in the WHRFMA (Table 4). All other species of fish and invertebrates are off limits within the WHRFMA. Although other aquatic life is allowed to be collected from the eastern side of the island of Hawai‘i, these 40 species represent the majority of fish that are collected in East Hawai‘i.

Table 4. White List species (DAR 2014a).

Common Name	Scientific Name	Common Name	Scientific Name
Yellow Tang	<i>Zebrasoma flavescens</i>	Lei Triggerfish	<i>Sufflamen bursa</i>
Achilles Tang	<i>Acanthurus achilles</i>	(Forster’s) Blackside Hawkfish	<i>Paracirrhites forsteri</i>
Black Surgeonfish (chevron tang)	<i>Ctenochaetus hawaiiensis</i>	Thompson’s Surgeonfish	<i>Acanthurus thompsoni</i>
Shortnose (Geoffroy’s) Wrasse	<i>Macropharyngodon geoffroy</i>	Pyramid Butterflyfish	<i>Hemitaenichthys polylepis</i>
Goldrim Tang	<i>Acanthurus nigricans</i>	Multiband (Pebbled) Butterflyfish	<i>Chaetodon multicinctus</i>
Fourspot Butterflyfish	<i>Chaetodon quadrimaculatus</i>	Hawaiian Dascyllus	<i>Dascyllus albisella</i>

Common Name	Scientific Name	Common Name	Scientific Name
Orangeband (Shoulder) Surgeonfish	<i>Acanthurus olivaceus</i>	Saddle Wrasse	<i>Thalassoma duperrey</i>
Orangespine Unicornfish (Clown Tang)	<i>Naso lituratus</i>	Redbarred Hawkfish	<i>Cirrhitops fasciatus</i>
Forcepsfish	<i>Forcipiger flavissimus</i>	Eightline Wrasse	<i>Pseudocheilinus octotaenia</i>
Spotted Boxfish (Boxfish)	<i>Ostracion meleagris</i>	Fourlined Wrasse	<i>Pseudocheilinus tetrataenia</i>
Yellowtail Coris (Clown Wrasse)	<i>Coris gaimard</i>	Brown Surgeonfish (Lavender, Forktail Tang)	<i>Acanthurus nigrofuscus</i>
Milletseed (Lemon) Butterflyfish	<i>Chaetodon miliaris</i>	Hawaiian Whitespotted Toby (Puffer)	<i>Canthigaster jactator</i>
Kole (Goldring Surgeonfish, Yelloweye, Goldring)	<i>Ctenochaetus strigosus</i>	Bluestripe Snapper (Taape)	<i>Lutjanus kasmira</i>
Pencil Wrasse	<i>Pseudojuloides cerasinus</i>	Peacock Grouper (Roi, bluespot Peacock Grouper)	<i>Cephalopholis argus</i>
Bird Wrasse	<i>Gomphosus varius</i>	Psychedelic Wrasse	<i>Anampses chrysocephalus</i>
Blacklip Butterflyfish (Coral Butterflyfish)	<i>Chaetodon kleinii</i>	Tinker's Butterflyfish	<i>Chaetodon tinkeri</i>
Potter's Angelfish	<i>Centropyge potteri</i>	Longfin Anthias	<i>Pseudanthias hawaiiensis</i>
Ornate Wrasse (Pinkface)	<i>Halichoeres ornatissimus</i>	Flame Wrasse	<i>Cirrhilabrus jordani</i>
Black Durgon	<i>Melichthys niger</i>	Fisher's Angelfish	<i>Centropyge fisheri</i>
Gilded Triggerfish (Blue-throat Triggerfish)	<i>Xanthichthys auromarginatus</i>	Eyestripe Surgeonfish (Palani)	<i>Acanthurus dussumieri</i>

The following sections provide a brief overview of the ecology of each White List species. Population estimates presented below are based on the NOAA Coral Reef Ecosystem Program (CREP; now known as the NOAA's Ecosystem Science Division) and the DAR West Hawaii Aquarium Project (WHAP) (see Section 4.4.7 for discussion of CREP and WHAP). Population estimates derived from both data sets have varying degrees of variability (described in Section 4.4.7) and are not a measure of absolute abundance. In addition, the CREP estimates are island-wide in depths of 0-98 feet (0-30 meters). The WHAP population estimates include only the Open (fished) Areas of the WHRFMA in depths of 30-60 feet. The difference in survey methods and area often leads to large differences in population estimates between the two data sets.

4.4.1.1 Yellow Tang (*Zebrasoma flavescens*)

The Yellow Tang is one of the most popular aquarium species, growing to 8 inches, oval in shape and laterally compressed, with a small mouth and eyes set high on the head. Adults are bright yellow and have modified scales along the base of the tail which can be exposed when the fish flexes its tail. These modified scales or spines are used for defense from predators and competition for feeding areas. At night, the yellow color darkens, and a white band appears along the lateral line (University of Hawai'i

2016). The Yellow Tang is found from shallow surge zones to a depth of 130 feet and occur in the Pacific Ocean: Ryukyu, Mariana, Marshall, Marcus, Wake, and Hawaiian Islands (fishbase.org 2018)

The Yellow Tang is the only solid yellow fish common throughout Hawai'i. This species is found in subtropical waters and is rare on the western extremes of its range. Flexible comb-like teeth are used to pick algae and seaweed that grow along the reefs. Young Yellow Tangs are associated with finger coral (*Porites compressa*) which is abundant in the coastal waters of the island of Hawai'i, but less so on O'ahu (Dr. Bruce Carlson, pers. comm.). They spend a large amount of time feeding and aggressively protect prime feeding territories (University of Hawai'i 2016).

Yellow Tang are broadcast spawners. Many broadcast spawners migrate to the edge of the reef-drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Yellow Tang at the 0-98 foot depth in hardbottom habitats was approximately 8,262,144 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Yellow Tang at the 30-60 foot depth was approximately 1,663,775 individuals and in 2016/2017 was approximately 2,224,149 individuals.

4.4.1.2 Achilles Tang (*Acanthurus achilles*)

A member of the surgeonfish family, the Achilles Tang grows to 10 inches, is laterally compressed, and has a small mouth and eyes set high on the head. Adults are recognized by the bright orange patch at the base of the tail, where modified scales can be exposed when the fish flexes its tail. These modified scales or spines are used for defense from predators and competition for feeding areas (University of Hawai'i 2016).

The Achilles Tang is known in the West Pacific, Oceanic Islands of Oceania to the Hawaiian Islands and Pitcairn Islands as well as Wake, Marcus, and Mariana Islands. In the Eastern Central Pacific, they are found around the southern tip of Baja, California, Mexico, and other offshore islands (fishbase.org 2018). The Achilles Tang is present throughout Hawai'i and found near exposed coral reefs and rocky shores. Flexible comb-like teeth are used to pick algae and seaweed that grow along the reefs. They spend a large amount of time foraging and aggressively protecting prime feeding territories (University of Hawai'i 2016).

Achilles Tang are broadcast spawners. Many broadcast spawners migrate to the edge of the reef-drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Achilles Tang at the 0-98 foot depth in hardbottom habitats was approximately 231,377 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Achilles Tang at the 30-60 foot depth was approximately 21,627 individuals and in 2016/2017 was approximately 13,960 individuals. As discussed and analyzed in

Section 5, the WHAP estimate is low because it does not assess the primary habitat and location of the Achilles Tang population on the island of Hawai'i.

4.4.1.3 Black Surgeonfish (Chevron Tang) (*Ctenochaetus hawaiiensis*)

The Black Surgeonfish is widespread throughout the tropical waters of the Pacific Ocean. Juveniles have blue and purple patterns on an orange to red background, these colors fade as the individual matures. Modified scales are present along the base of the tail which can be exposed when the fish flexes its tail. These modified scales or spines are used for defense from predators and competition for feeding areas (Randall and Clements 2001). The Black Surgeonfish is the 5th most collected aquarium fish in Hawai'i (DAR 2010).

Black Surgeonfish inhabits high energy shallow surge zones (IUCN 2017). The genus *Ctenochaetus* feed on fine detrital material. They whisk the sand or rocky substratum with their teeth and utilize suction to draw in the detrital material that consists of diatoms, small fragments of algae, organic material, and fine inorganic sediment (Randall and Clements 2001). Species of *Ctenochaetus* share the presence of a thick-walled stomach (Randall and Clements 2001), this character is significant with respect to the nutritional ecology of this genus (Choat et al. 2002b).

Black Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Black Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 549,462 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Black Surgeonfish at the 30-60 foot depth was approximately 34,678 individuals.

4.4.1.4 Shortnose (Geoffroy's) Wrasse (*Macropharyngodon geoffroy*)

The Shortnose Wrasse is endemic throughout the Hawaiian Islands and Johnston Atoll (Lobel 2003) and is found at depths between 20 and 100 feet. It has dark blue spots on a yellow to orange background. Research suggests that the Shortnose Wrasse is common throughout its range (Craig 2010). This species inhabits mixed sand, rubble patches, and coral reefs where it feeds on mollusks (Lieske and Myers 1994). Distinct pairs are formed during breeding (Breder and Rosen 1966).

Shortnose Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Shortnose Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 307,032 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Shortnose Wrasse at the 30-60 foot depth was approximately 3,222 individuals.

4.4.1.5 Goldrim Tang (*Acanthurus nigricans*)

The Goldrim Tang has a black to purplish-blue body with a small white mark on the cheek between the mouth and eyes. The fins are dark blue with lighter blue highlights along the edges. The tail is blue with a yellow vertical bar. A yellow stripe runs along the body, against the anal and dorsal fins, forming a wishbone-shaped marking. This species can be found throughout the eastern Indian Ocean to the Hawaiian Islands. Adults grow to about 8 inches and have a spine along the base of the tail used for defense against predators (Myers 1991). The Goldrim Tang is found along outer reefs at water depths between 6 and 220 feet and feed almost entirely on algae.

Spawning occurs in monogamous pairs during which time they can be alone or in small groups. Initially, larvae develop among plankton and then move to reefs where juveniles develop to adults (Kuitert and Tonozuka 2001). Goldrim Tang are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Goldrim Tang at the 0-98 foot depth in hardbottom habitat was approximately 97,924 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Goldrim Tang at the 30-60 foot depth was approximately 7,517 individuals.

4.4.1.6 Fourspot Butterflyfish (*Chaetodon quadrimaculatus*)

The upper half of the Fourspot Butterflyfish is black with two white spots. The lower half is yellow with a light blue trim around the dorsal and anal fins. They are sometimes confused with angelfish but lack a cheek spine. This species is found throughout the Indian Ocean.

Individuals are frequently found on exposed reefs between 6 and 140 feet where they feed mainly on coral polyps. Fourspot Butterflyfish are often observed alone; however, they form district pairs during breeding (Breder and Rosen 1966).

Fourspot Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Fourspot Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 797,673 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Fourspot Butterflyfish at the 30-60 foot depth was approximately 22,000 individuals.

4.4.1.7 Orangeband (Shoulder) Surgeonfish (*Acanthurus olivaceus*)

The Orangeband Surgeonfish occurs in tropic waters of the Indo-west Pacific. The head and anterior half of the Orangeband Surgeonfish are distinctly paler than that of the dark grayish brown posterior.

Juveniles are bright yellow. Orangeband Surgeonfish are commonly found in small groups near reefs at depths of 30 to 150 feet (Randall and Clements 2001) where they feed on detritus, diatoms, and algae (Myers 1991).

Orangeband Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Orangeband Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 1,319,924 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Orangeband Surgeonfish at the 30-60 foot depth was approximately 26,101 individuals.

4.4.1.8 Orangespine Unicornfish (Clown Tang) (*Naso lituratus*)

The Orangespine Unicornfish has a black dorsal fin, with the black continuing onto the back as a pointed projection, with a pale blue line at base. The anal fin is mainly orange while the caudal fin is yellow. The caudal peduncle bears two forward-directed spines (Randall and Clements 2001). Orangespine Unicornfish are found at depths of 16 to 100 feet along coral, rock, and rubble of seaward reefs. They feed mostly on leafy brown algae and sometimes in groups (Randall and Clements 2001). Distinct pairs are formed during breeding.

Orangespine Unicornfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

The species is found throughout the Indo-Pacific from the Red Sea (except the Gulf of Oman and Persian Gulf) south to Natal and east to Hawai'i and French Polynesia. In the western Pacific from Suruga Bay to the southern Great Barrier Reef (Randall and Clements 2001).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Orangespine Unicornfish at the 0-98 foot depth in hardbottom habitat was approximately 897,085 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Orangespine Unicornfish at the 30-60 foot depth was approximately 150,642 individuals.

4.4.1.9 Forcepsfish (*Forcipiger flavissimus*)

The Forcepsfish has a long black snout, and the head is dark brown to black above and white below. The body is yellow with a black spot on the anal fin. Adults can grow up to 8 inches. This species is widespread throughout the Hawaiian Islands and the tropical waters of the Indo-Pacific area (University of Hawai'i 2016).

The Forcepsfish typically lives along exposed outer reefs containing abundant coral growth, caves, and ledges, and occasionally within lagoon reefs. This species usually occurs in pairs but may also be

encountered as solitary animals or in small groups. It feeds on a variety of small animals including hydroids, fish eggs, and crustaceans, but prefers tube feet of echinoderms, pedicellaria of sea urchins, and polychaete tentacles (Myers 1991).

Forcepsfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Forcepsfish at the 0-98 foot depth in hardbottom habitat was approximately 435,954 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Forcepsfish at the 30-60 foot depth was approximately 43,999 individuals.

4.4.1.10 Spotted Boxfish (Boxfish) (*Ostracion meleagris*)

The Spotted Boxfish is Hawai'i's most common boxfish. Juvenile and female Spotted Boxfish are brown to green with white spots while the males have orange bands and spots on the side of the body. They are found throughout the Hawaiian Islands and inhabit clear lagoons and seaward reefs from 3 to 100 feet. Juveniles are often observed among rocky boulders (Myers 1991).

Spotted Boxfish live in small harem groups, usually one male to several females. They forage alone within their home ranges for sponges, worms, mollusks, copepods, and algae. Males defend territories against other males (Myers 1991).

Spotted Boxfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Spotted Boxfish at the 0-98 foot depth in hardbottom habitat was approximately 94,937 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Spotted Boxfish at the 30-60 foot depth was approximately 9,322 individuals.

4.4.1.11 Yellowtail Coris (Clown Wrasse) (*Coris gaimard*)

Juvenile Yellowtail Coris are bright red with white spots, as individuals mature into females they fade to orange with blue spots and a bright yellow tail. Like other wrasses (Family Labridae) adults may undergo a sex change from female to male. Males are distinguished by a green bar on the side of the body and a dark band on the upper and lower fins and numerous blue spots (University of Hawai'i 2016).

The Yellowtail Coris is a solitary species that is found in mixed coral, sand and rubble of outer reefs, lagoons, and seaward reefs. They feed primarily on mollusks, crabs, and tunicates (Myers 1991). Prominent canine teeth help this fish pick small crustaceans and mollusks from the reef. Active during the day, they take shelter in reef crevices or bury in sand at night (University of Hawai'i 2016).

Distribution ranges are from Western Australia, Cocos – Keelings Islands, Christmas Island in the eastern Indian Ocean, Southern Japan to New South Wales, Lord Howe Island and east to Hawaiian Islands (Randall 2007). Phylogeographic analyses show that the Hawaiian population is genetically distinct from elsewhere in the Pacific (Ahti et al. 2016).

Yellowtail Coris are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Yellowtail Coris at the 0-98 foot depth in hardbottom habitat was approximately 391,507 individuals. WHAP data indicate the 2104 WHRFMA Open Area population of Yellowtail Coris at the 30-60 foot depth was approximately 19,762 individuals.

4.4.1.12 Milletseed (Lemon) Butterflyfish (*Chaetodon miliaris*)

The Milletseed Butterfly fish is endemic to Hawai'i and the most common species of butterflyfish in Hawai'i including the Johnston Atoll (Lobel 2003). The species is named for the seed-sized black specks that are distributed in vertical rows on its lemon-yellow body. Other distinctive features are a black mask through the eye and a black spot near the tail. Adults reach lengths of 6.5 inches (University of Hawai'i 2016).

Habitat for this species includes coastal fringing reefs, lagoons, and outer reefs, with juveniles found on shallow inner reefs from April to June (IUCN 2017). The Milletseed Butterflyfish feeds primarily on zooplankton above the reef, but sometimes cleans other fishes and is also known to feed on nests of damselfish eggs if left unprotected.

Milletseed Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Milletseed Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 122,588 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Milletseed Butterflyfish at the 30-60 foot depth was approximately 7,085 individuals. However, much of the Milletseed Butterflyfish population occurs below the 60-foot depth surveyed by the WHAP and below the 98-foot depth surveyed by the CREP, and therefore the population is underestimated by both surveys.

4.4.1.13 Kole (Goldring Surgeonfish, Yelloweye, Goldring) (*Ctenochaetus strigosus*)

The Kole is endemic to the Hawaiian Islands (Randall and Clements 2001) and Johnston Atoll (Lobel 2003). It is brown with light blue to yellow horizontal stripes over its body which change into spots towards the face. It also has a yellow ring surrounding the eye.

Individuals are usually solitary and mainly found in shallow water, although it has been recorded at depths of 370 feet. This species is herbivorous, grazing on diatoms and algae from the sand or reef (Randall and Clements 2001), and has also been commonly observed to clean algal growths from the shells of sea turtles (Work and Aeby 2014).

Kole are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Kole at the 0-98 foot depth in hardbottom habitat was approximately 11,697,561 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Kole at the 30-60 foot depth was approximately 3,616,529 individuals and in 2016/2017 was approximately 4,662,582 individuals.

4.4.1.14 Pencil Wrasse (*Pseudojuloides cerasinus*)

Body color and pigmentation has been shown to vary geographically in the Pencil Wrasse; however, the most common coloration is a salmon pink body with yellowish fins. A blue to yellow double stripe extends from the head to the tail. Adults can grow up to 5 inches (Myers 1991). This species is found throughout Indian and Pacific oceans from east Africa to the Hawaiian Islands.

The Pencil Wrasse is found in clear lagoons, outer reef faces, and coral rubble at depths of 7 to 200 feet. They are also common among live coral and areas with large algae clumps (Myers 1991). When threatened, they will hide among the rubble, bury in the sand, or try to out-swim predators. Pencil Wrasses feed on small, benthic invertebrates, mainly fan worms and small crustaceans that they pluck from the substrate. The Pencil Wrasse is found in areas with abundance of sand and gradual bathymetric relief; typically, north western region of the Big Island (BIAAF pers. comm.).

Pencil Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Pencil Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 169,025 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Pencil Wrasse at the 30-60 foot depth was approximately 19,390 individuals.

4.4.1.15 Bird Wrasse (*Gomphosus varius*)

The Bird Wrasse has an elongated body and is laterally compressed. Adults can reach 12 inches and are easily recognized by their long snout; juveniles lack the snout and are thus difficult to identify. The first third of the body is lightly colored and the posterior is grayish with a dark border. Males tend to be more uniformly colored (Myers 1999).

The Bird Wrasse is commonly found along external slopes, reefs, and lagoons at depths of 6 to 100 feet (Myers 1991). This wrasse feeds mainly on small benthic crustaceans, and sometimes on small fishes, brittle stars, and mollusks. The Bird Wrasse is a sequential hermaphrodite, meaning juveniles develop first into females and then change to males based on external stimuli (Randall et al 1990).

Bird Wrasse are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Bird Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 877,224 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Bird Wrasse at the 30-60 foot depth was approximately 43,254 individuals.

4.4.1.16 Blacklip Butterflyfish (Coral Butterflyfish) (*Chaetodon kleinii*)

The body of the Blacklip Butterflyfish is yellow/brown with one or two broad lighter vertical bars, one running from the dorsal spine to the belly, and one from the middle of the back to the center of the body. A black bar runs vertically across the eye, the part before this is whitish, with a black snout. The color varies somewhat across its range (Burgess 1978).

The Blacklip Butterflyfish is found along rocky reefs and coral-rich areas of lagoons, channels, and outer reef slopes at depths of 6-200 feet. This species is mostly solitary but has been observed in pairs, and occasionally in large groups of up to about 30 individuals, sometimes high in the water column. It is a facultative corallivore, feeding on hard and soft corals, as well as algae, hydroids, and zooplankton (Myers 1991). Distinct pairing has been observed during breeding (Breder and Rosen 1966). Its range includes the east coast of Africa to the Hawaiian Islands and South Wales (Randall 2007).

Blacklip Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Blacklip Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 131,260 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Blacklip Butterflyfish at the 30-60 foot depth was approximately 5,593 individuals.

4.4.1.17 Potter's Angelfish (*Centropyge potteri*)

The bright orange and blue Potter's Angelfish is an endemic species found along Hawaiian reefs and the Johnston Atoll (Lobel 2003). Like other angelfishes, this species is recognized by a heavy, curved spine on its "cheek" near the edge of the gill cover. However, because it generally only reaches approximately 5 inches, it is considered a 'pygmy' angelfish. Its slender, disc-shaped body is well-suited to life on a coral reef.

Individuals limit their movements to a well-defined area close to the shelter of finger coral branches, usually at depths of at least 15 feet. Active by day, it feeds on algae and detritus on dead coral surfaces. At night, it remains alert but inactive, protected within the coral. Angelfishes are very dependent upon the protection of coral caves and crevices and are rarely seen over sandy stretches or other areas that offer little cover. They are often territorial and spend most of their time near the bottom in search of food. They have small mouths and many flexible, comb-like teeth used for plucking or scraping food from the rocks (University of Hawai'i 2016).

Peak reproductive activity occurs from mid-December through May. They spawn at dusk during the week before full moon (Allen 1985). Among angelfishes, a sex reversal from female to male can be part of the life history. Most small individuals are female and larger, more colorful individuals are male. Larger, brighter males are usually accompanied by smaller, drabber females, forming a harem. A dominant female Potter's Angelfish changes sex to become the harem master if the male is removed (University of Hawai'i 2016).

Potter's Angelfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Potter's Angelfish at the 0-98 foot depth in hardbottom habitat was approximately 1,087,709 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Potter's Angelfish at the 30-60 foot depth was approximately 237,149 individuals.

4.4.1.18 Ornate Wrasse (Pinkface) (*Halichoeres ornatissimus*)

This small wrasse has a pinkish head that is marked with horizontal green lines. The throat and belly are blue; scales on the sides are marked by a vertical, crescent-shaped stripe followed by blue. The dorsal fin is dark red with green spots and is traced by green and blue lines. A large dark spot on the dorsal fin and one just behind the eye are common identifiers. Males usually have more intense coloration than females (University of Hawai'i 2016). The Ornate Wrasse range extends from the Philippines to the Great Barrier Reef, New Caledonia, and east to the Hawaiian Islands (Randall 2007).

The Ornate Wrasse has an elongate soft body that is tapered and spindle-shaped. The dorsal fin is continuous, rounded, and soft. The pectoral fins are used extensively for swimming with up and down motions. The snout has a pointed mouth, fleshy lips, and canine teeth used in plucking small crustaceans and mollusks from the reef. Special bones in the gill area called pharyngeal bones help the wrasse crush the shells of their prey. The Ornate Wrasse is diurnal, feeding during the day, and sheltering in reef crevices or burying in sand patches at night. The Ornate Wrasse, like others within this family (Labridae) undergo sex changes as they develop (University of Hawai'i 2016).

Ornate Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Ornate Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 1,630,224 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Ornate Wrasse at the 30-60 foot depth was approximately 192,404 individuals.

4.4.1.19 Black Durgon (*Melichthys niger*)

The Black Durgon is a triggerfish with bright white lines running along its dorsal and anal fins. The body is mottled dark blue or green with an orange head. To camouflage itself, this species changes color based on habitat surroundings (Hoover 2008).

The habitat preference of the Black Durgon includes open waters and shallow exposed reefs at water depths of 15 to 115 feet. The diet consists primarily of calcareous algae and zooplankton. A study conducted in the Fernando de Noronha Archipelago showed the feces and vomit of Spinner dolphins (*Stenella longirostris*) formed part of the diet of Black Durgon. The study showed individuals could discern the postures dolphins assumed prior to voiding and would position themselves for effective feeding (Sazima et al. 2003). The Black Durgon has a circumtropical distribution (Randall 2007).

The Black Durgon produce demersal eggs that may or may not be tended by a parent, usually the female. Unlike most other families of reef fishes, the balistids (i.e., triggerfish) exhibit extensive maternal care of eggs. Eggs are typically deposited in shallow pits excavated by the parents as an adhesive egg mass containing bits of sand and rubble. Triggerfish eggs hatch in as little as 12 hours and no more than 24 hours (WPRFMC 2005).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Black Durgon at the 0-98 foot depth in hardbottom habitat was approximately 1,354,454 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Black Durgon at the 30-60 foot depth was approximately 38,033 individuals.

4.4.1.20 Gilded Triggerfish (Bluethroat Triggerfish) (*Xanthichthys auromarginatus*)

The Gilded Triggerfish is found throughout the Indian and Pacific oceans from east Africa to the Hawaiian Islands. The female Gilded Triggerfish lacks the blue patch on the throat and yellow tail of the male. Both sexes have a blue ring around the eye and a lavender/gray blue body with gray to white spots that make a linear pattern. Adults can grow up to 12 inches.

This species is found along drop-offs and ledges at water depths of 75 to 480 feet. This species prefers current-swept areas with abundant invertebrate growth. Small groups have been observed at 10-20 feet above the bottom feeding on zooplankton, specifically copepods (Breder and Rosen 1966).

The Gilded Triggerfish produce demersal eggs that may or may not be tended by a parent, usually the female. Unlike most other families of reef fishes, the balistids (i.e., triggerfish) exhibit extensive maternal care of eggs. Eggs are typically deposited in shallow pits excavated by the parents as an adhesive egg mass containing bits of sand and rubble. Triggerfish eggs hatch in as little as 12 hours and no more than 24 hours (WPRFMC 2005).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Gilded Triggerfish at the 0-98 foot depth in hardbottom habitat was approximately 129,089 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Gilded Triggerfish at the 30-60 foot depth was approximately 11,186 individuals.

4.4.1.21 Lei Triggerfish (*Sufflamen bursa*)

The Lei Triggerfish is found throughout the Indian and Pacific oceans from east Africa to the Hawaiian Islands. This species is also known as the boomerang triggerfish for the characteristic V-shaped mark behind the eye which is yellow-orange or brown-green. Adults can grow up to 9.5 inches.

This species is common on clear inner and outer reefs and drop-offs from 10 to 300 feet, where they feed on crabs, bivalves, gastropods, algae, echinoids, tunicates, worms, eggs, and detritus. Lei Triggerfish have been shown to form distinct pairing during breeding (Breder and Rosen 1966).

The Lei Triggerfish produce demersal eggs that may or may not be tended by a parent, usually the female. Unlike most other families of reef fishes, the balistids (i.e., triggerfish) exhibit extensive maternal care of eggs. Eggs are typically deposited in shallow pits excavated by the parents as an adhesive egg mass containing bits of sand and rubble. Triggerfish eggs hatch in as little as 12 hours and no more than 24 hours (WPRFMC 2005).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Lei Triggerfish at the 0-98 foot depth in hardbottom habitat was approximately 1,299,027 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Lei Triggerfish at the 30-60 foot depth was approximately 76,440 individuals.

4.4.1.22 (Forster's) Blackside Hawkfish (*Paracirrhites forsteri*)

The Blackside Hawkfish is yellow with a broad black or dark brown lateral band on the rear half of the body. The sides of the head and the front of the body are whitish or grey, with red speckles but there is considerable color variation among adults (Randall 1986). Geographical differences in color have also been recorded in juveniles (Myers 1999). This species ranges throughout the Indian and Pacific oceans. Adults can grow up to 8 inches.

The Blackside Hawkfish is commonly found in clear lagoons or seaward reefs at a depth of 15 to 115 feet (Lieske and Myers 1994). To hunt, the hawkfish perches on branches of coral and ambushes small fish, crustaceans, and shrimp. This species is a sequential hermaphrodite, meaning juveniles develop into females and then change to males based on external stimuli (Myers 1999).

Blackside Hawkfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Blackside Hawkfish at the 0-98 foot depth in hardbottom habitat was approximately 246,727 individuals. WHAP data indicate the

2012/2013 WHRFMA Open Area population of Blackside Hawkfish at the 30-60 foot depth was approximately 20,508 individuals.

4.4.1.23 Thompson's Surgeonfish (*Acanthurus thompsoni*)

The body of the Thompson's Surgeonfish is uniformly black to dark brown. The caudal fin is pale with a small dark spot below the pectoral fin. This species ranges throughout the Indian and Pacific Oceans.

This species inhabits steep outer reef slopes and drop-offs of 16 to 230 feet deep. Thompson's Surgeonfish have been observed schooling in groups feeding on zooplankton, fish eggs and crustaceans (Randall 1956).

Thompson's Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Thompson's Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 405,776 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Thompson's Surgeonfish at the 30-60 foot depth was approximately 91,728 individuals.

4.4.1.24 Pyramid Butterflyfish (*Hemitaurichthys polylepis*)

The Pyramid Butterflyfish has a dark brown-yellow area that fully masks the head and extends to a line from the first rays of the dorsal fin to the start of the pelvic fins. The rest of its body is white. Large yellow-orange areas at the top of the side form a characteristic pyramidal pattern, giving this species its name. This species is found throughout the tropical and subtropical waters of the Indian and Pacific oceans (Myers 1999).

This fish aggregates in large schools in open water at the edges of steep outer reef slopes at depths of 10 to 200 feet (Lieske and Myers 1994). The Pyramid Butterflyfish feeds mostly on plankton and forms pairs during breeding (Breder and Rosen 1966).

Pyramid Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Pyramid Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 23,217 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Pyramid Butterflyfish at the 30-60 foot depth was approximately 56,677 individuals.

4.4.1.25 Multiband (Pebbled) Butterflyfish (*Chaetodon multincinctus*)

The Multiband Butterflyfish is endemic to the Hawaiian Islands and Johnston Atoll (Lobel 2003). The body is white with five or six brown vertical bands. A dark vertical bar runs along the eye and a black band along the tail fin. The distinguishing feature is an overall covering of small spots which create a pattern of horizontal and vertical lines along the body.

The Multiband Butterflyfish inhabits heavy coral areas of lagoon and seaward reefs at depths of 15 to 100 feet. This species mainly feeds on the polyps of small corals but also supplement their diet with worms, shrimps, hydroids, and algae fragments. This species is often seen in monogamous pairs and defending an established territory (Breder and Rosen 1966).

Multiband Butterflyfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Multiband Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 1,788,604 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Multiband Butterflyfish at the 30-60 foot depth was approximately 580,196 individuals.

4.4.1.26 Hawaiian Dascyllus (Domino) (*Dascyllus albisella*)

The Hawaiian Dascyllus is endemic to shallow, protected coral reefs around the Hawaiian Islands and Johnston Atoll (Lobel 2003). The center of the body is pale white, and the edges are dark gray to black.

This species feeds on zooplankton, invertebrates, and algae at water depths of 3 to 160 feet. Adults are most often observed in protected areas of shallow water with coral or rocky bottoms (Lieske and Myers 1994). Breeding occurs in pairs with eggs deposited in substrate and the males guarding and aerating (Breder and Rosen 1966).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Hawaiian Dascyllus at the 0-98 foot depth in hardbottom habitat was approximately 225,153 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Hawaiian Dascyllus at the 30-60 foot depth was approximately 57,796 individuals.

4.4.1.27 Saddle Wrasse (*Thalassoma duperrey*)

The Saddle Wrasse is a common and endemic reef fish of Hawai'i and Johnston Atoll (Lobel 2003). It is found at depths ranging from 16 to 98 feet. This species has a blue head, green body with a prominent red saddle and purple highlights around the edges of the fins (University of Hawai'i 2016).

This species is commonly observed alone, in pairs, or in small groups close to the reef where they forage for small crustaceans, mollusks, worms, urchins, and brittlestars. Canine teeth are used to pick these invertebrates from the reef. Most individuals begin life as females, when older they show the typical blue,

red, and green pattern. Females that change to males, which is common in the wrasse family (Labridae) and have a white bar behind the red saddle. These sex-changed males are called “terminal phase” males and become dominant territory holders that maintain a harem of females (University of Hawai‘i 2016).

Saddle Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai‘i population of Saddle Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 6,396,052 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Saddle Wrasse at the 30-60 foot depth was approximately 537,688 individuals.

4.4.1.28 Redbarred Hawkfish (*Cirrhilabrus fasciatus*)

The Redbarred Hawkfish is found throughout the Hawaiian Islands and Indo-Pacific oceans in a variety of reef habitats at depths of 3 to 170 feet. Primary habitats include seaward reefs and areas with abundant coral growth (Lieske and Myers 1994). Bright red bands and speckles are found on the body, adults grow to 5 inches. This species feeds primarily on small fish, shrimp, and crab and occasionally on zooplankton (Randall 1985). The name hawkfish comes from their habit of “swooping” down on prey or invaders from “perches”.

Redbarred Hawkfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai‘i population of Redbarred Hawkfish at the 0-98 foot depth in hardbottom habitat was approximately 231,580 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Redbarred Hawkfish at the 30-60 foot depth was approximately 9,665 individuals.

4.4.1.29 Eightline Wrasse (*Pseudocheilinus octotaenia*)

The Eightline Wrasse is widespread from east Africa to the Hawaiian Islands. This species has variable color patterns from yellowish/orange to a pink/reddish body. The distinguishing feature of this species are the eight horizontal stripes, ranging from orange to a maroon red. They have a pointed head and mouth which enable them to feed on coral reef invertebrates such as, mollusks, sea urchins, fish eggs, and crab larvae (Myers 1991, 1999).

The Eightline Wrasse inhabits corals and seaward reefs at depths of 6 to 164 feet (Myers 1991) and forms distinct mating pairs (Breder and Rosen 1966). This species is diurnal, feeding during the day and resting at night.

Eightline Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Eightline Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 689,221 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Eightline Wrasse at the 30-60 foot depth was approximately 187,557 individuals.

4.4.1.30 Fourline Wrasse (*Pseudocheilinus tetrataenia*)

The Fourline Wrasse is found in the tropical waters of the north and south Pacific. This species has a green body with blue and purple fins and four horizontal stripes that run across the upper half of the body. Each stripe is made up of three smaller stripes: one black, one blue and one red stripe. The eye is red with two white lines on it.

This species is secretive and inhabits seaward reefs, among coral or rubble at depths of 20 to 144 feet. This species uses the small heads of live coral to hide from predators (Myers 1991) and is thought to mainly feed on demersal eggs, copepods, amphipods, alpheid shrimp, crabs, larval shrimp, and gastropods (Myers 1999). The Fourline Wrasse forms distinct pairing during breeding (Breder and Rosen 1966).

Fourline Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Fourline Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 1,253,164 individuals. WHAP data indicate the 2104 WHRFMA Open Area population of Fourline Wrasse at the 30-60 foot depth was approximately 327,758 individuals, but due to its secretive behavior, visual counts usually underestimate its numbers.

4.4.1.31 Brown Surgeonfish (Lavender, Forktail Tang) (*Acanthurus nigrofuscus*)

The Brown Surgeonfish is one of the 10 most collected aquarium fish in West Hawai'i (DAR 2018a). This species is common throughout the Indo-Pacific oceans and is one of the most abundant surgeon fishes (Randall 2002). It is a small but aggressive fish with bluish gray vertical stripes along the body. The pectoral fins are pale with the upper edge narrow and black; pelvic fins are brown. Lips blackish brown, and the dorsal fin base has a prominent black spot larger than 1/2 the eye diameter; a smaller spot is present on base of the anal fin.

The Brown Surgeonfish is often found on hard substrates of lagoons and seaward reefs at depths of 6 to 82 feet (Domeier and Colin 1997) where it feeds exclusively on filamentous algae. Adults are usually observed in small groups but can also form large schools in open water. Juveniles are often associated with mixed species aggregations (Kuitert and Tonzuka 2001) and forms large spawning groups of up to several thousand individuals (Domeier and Colin 1997). Phylogeographic analyses reveal that the Hawaiian population is genetically connected to other locations in the Central Pacific, comprising a very large management unit in terms of both geography and numbers of individuals (Eble et al. 2011).

Brown Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and

sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Brown Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 14,439,543 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Brown Surgeonfish at the 30-60 foot depth was approximately 1,646,996 individuals.

4.4.1.32 Hawaiian Whitespotted Toby (Puffer) (*Canthigaster jactator*)

The Hawaiian Whitespotted Toby is endemic to Hawai'i and the Johnston Atoll (Lobel 2003). This species belongs to the pufferfish family (Tetraodontidae) and reaches lengths of 4 inches. The body is brown with white spots, the eye is green.

Hawaiian Whitespotted Toby are common in lagoon and seaward reefs at depth of 3 to 290 feet (Mundy 2005). This species has also been found to utilize man-made structures (Brock 1981) and has been shown to feed on sponges, algae, detritus, tunicates, polychaetas, bryozoans, sea urchins, brittle stars, crabs, peanut worms, shrimps, zoanths, fishes, amphipods and foraminiferans (Randall 1985). It often is afflicted with parasitic worms (nematodes), causing it to become inflated (Deardorff and Stanton 1983).

Breeding behavior has not been documented for the Hawaiian Whitespotted Toby; however, the eastern pacific white-spotted toby (*Canthigaster punctatissima*) has been found to be sexually dimorphic. It is likely that the toby's breeding behavior is similar. Males and females guard their territories against others of the same sex. Male areas include the smaller territories of multiple females. Males mate with a female from their harem one at a time.

The Hawaiian Whitespotted Toby is a broadcast spawner, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Hawaiian Whitespotted Toby at the 0-98 foot depth in hardbottom habitat was approximately 685,517 individuals. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Hawaiian Whitespotted Toby at the 30-60 foot depth was approximately 250,573 individuals.

4.4.1.33 Bluestripe Snapper (Taape) (*Lutjanus kasmira*)

The Bluestripe Snapper is an introduced species in Hawai'i. It has a bright yellow body and fins with four horizontal blue stripes. The yellow fades to white in the lower third of the body. The body is moderately compressed laterally, with an average length of 13.5 inches (Allen 1985a). This species is found throughout the Indo-Pacific oceans.

The Bluestripe Snapper inhabits shallow-water reefs (100 to 500 feet) where it feeds on shrimp, cephalopods, gastropods, crabs, and small fish. This species also utilizes artificial structures in shallow bays throughout its range. Juveniles have been found to use seagrass beds until reaching maturity

(Lieske and Myers 1994). The introduction of this fish into Hawai'i included at least one non-native parasite that has spread to local fishes (Gaither et al. 2013).

Bluestripe Snapper are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Allen 1985a, Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Bluestripe Snapper at the 0-98 foot depth in hardbottom habitat was approximately 7,092,851 individuals. However, this is a low estimate because much of the Bluestripe Snapper population occurs below the 98-foot depth surveyed by the CREP (2018) and is not observable by the methods of the survey. WHAP data indicate the 2012/2013 WHRFMA Open Area population of Bluestripe Snapper at the 30-60 foot depth was approximately 7,830 individuals. The large difference in these estimates results from the larger survey area of the CREP survey which samples more of the population.

4.4.1.34 Peacock Grouper (Roi, Bluespot Peacock Grouper) (*Cephalopholis argus*)

The Peacock Grouper is widely distributed throughout the Indo-Pacific oceans and has been introduced to the Hawaiian Islands. Individuals can reach a length of up to 24 inches and are identified by white vertical stripes on the back half of a brown colored body. Peacock Grouper was thought to present a risk to native species of Hawai'i (Dierking 2007). However, a recently completed 5.5-year study found that removal of the Peacock Grouper did not translate into sustained increases in prey, nor to increases in total fish biomass (Giddens et al. 2017).

This Peacock Grouper prefers exposed reef front habitats with a water depth of 3 to 30 feet, while juveniles utilize thick pockets of coral (Myers 1999). Individuals use a variety of hunting techniques to capture prey. They may hover and wait, stalk prey, and follow larger predators such as eels and attack missed prey (Hoover 2008). Dierking et al. (2009) found reef fishes were the principal diet component (97.7% by % Index of Relative Importance [IRI]) of Peacock Grouper, with all 10 of the most abundant species on West Hawai'i reefs found in the stomachs of Peacock Grouper. Some fishes that were rare in the reef environment in West Hawai'i were found to be important components of the diet, while others, although highly abundant on West Hawai'i reefs, had low dietary importance. Crustaceans were the only other higher taxonomic group in the diet but were of minor importance (2.3% by %IRI) (Dierking et al. 2009).

Peacock Grouper are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984). Males defend territories and their harem of up to six females from other males.

CREP (2018) data indicate that the 2016 island of Hawai'i population of Peacock Grouper at the 0-98 foot depth in hardbottom habitat was approximately 476,556 individuals. WHAP data indicate the 2012/2013

WHRFMA Open Area population of Peacock Grouper at the 30-60 foot depth was approximately 24,610 individuals.

4.4.1.35 Psychedelic Wrasse (*Anampses chrysocephalus*)

The Psychedelic Wrasse is endemic to the Hawaiian Islands and is found among seaweed coral reefs at depths from 40 to 450 feet (Lieske and Myers 1994). This species is dark brown with white spots and a red tail. However, like others in the wrasse family, as the females mature they undergo a color and sexual transition to the “terminal phase” male. These males have a bright orange head covered in blue spots and radiating lines. Psychedelic Wrasse terminal phase males are usually only found in depths greater than 50 feet (DLNR 2015). The main prey for the Psychedelic Wrasse are macro-invertebrates found among the rocks and corals it inhabits. Females usually form small groups with a single male (Lieske and Myers 1994).

Psychedelic Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Psychedelic Wrasse at the 0-98 foot depth in hardbottom habitat was approximately 36,770 individuals. However, the Psychedelic Wrasse occupies habitat below the 98-foot depth surveyed by the CREP (2018) study. As such, this is likely a low estimate, because much of the population is not observable by the methods of the study. WHAP could not produce estimates for this species because the species occurs in habitats not adequately surveyed by WHAP transects.

The Psychedelic Wrasse is a DLNR Species of Greatest Conservation Need (SGCN, Section 4.4.3), but is considered a species of ‘Least Concern’ by the IUCN (2017).

4.4.1.36 Tinker's Butterflyfish (*Chaetodon tinkerii*)

The Tinker's butterflyfish is identified by a gold mask over the eye, with a diagonal demarcation separating a white lower/front part of the body and head from a black upper rear portion. Tinker's Butterflyfish is found from Hawai'i Island through O'ahu (DLNR 2015), and the Johnston Atoll to the Marshall Islands (Lobel 2003). Tinker's Butterflyfish can be found at least as deep as 400 feet on O'ahu and Hawai'i (Pyle pers. comm.) on coral reef slopes. Common prey species for Tinker's Butterflyfish include small invertebrates, crabs, and worms (Pyle 2001).

Tinker's Butterflyfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Tinker's Butterflyfish at the 0-98 foot depth in hardbottom habitat was approximately 18,475 individuals. However, the vast majority of the population occurs well below the 98-foot depth surveyed by the CREP and is not observable by the methods of the survey. WHAP could not produce estimates of this species because the species occurs in habitats not adequately surveyed by WHAP transects.

The Tinker's Butterflyfish is a DLNR SGCN (Section 4.4.3) but is considered a species of 'Least Concern' by the IUCN (2017).

4.4.1.37 Longfin Anthias (*Pseudanthias hawaiiensis*)

The Longfin Anthias can grow up to 4 inches and is bright yellow to orange with red and purple along the fins. It is endemic to Hawai'i and the Johnston Atoll (Lobel 2003) and is found in caves or coral rubble along steep drop-offs from 85 to 400 feet deep (Randall 2007). This species feeds primarily on larvae of crustaceans and fish eggs (Bachhet et al. 2006).

Longfin Anthias are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

Most of the Longfin Anthias population occurs below the 98-foot depth surveyed by the CREP and the 60-foot depth surveyed by the WHAP, and therefore the species is not observable by the methods of either survey. As such, data are not available to produce a reliable WHRFMA or island-wide population estimate.

4.4.1.38 Flame Wrasse (*Cirrhilabrus jordani*)

The Flame Wrasse is endemic to the Hawaiian Islands and the Johnston Atoll (Lobel 2003, Lieske and Myers 1994). Females are bright red on the dorsal part of the body fading to a light pink on the ventral side. The fins are opaque with some yellow features on the face. Females grow to about 3 inches before they begin to transform into a male. As the male matures the dorsal remains bright red fading into a vibrant yellow orange.

The Flame Wrasse utilizes seaward reefs and forms groups above large drop-offs at a depth of 15 to 600 feet, where it feeds exclusively on zooplankton along the ocean floor (Lieske and Myers 1994). Prime Flame Wrasse habitat became an FRA when Act 306 was implemented (BIAAF, pers. comm.). During breeding males and females form pairs for mating (Breder and Rosen 1966).

Flame Wrasse are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

Most of the Flame Wrasse population occurs below the 60-foot depth surveyed by the WHAP and below the 98-foot depth surveyed by the CREP, and therefore the species is not observable by the methods of either survey. As such, data are not available to produce a reliable WHRFMA or island-wide population estimate.

4.4.1.39 Fisher's Angelfish (*Centropyge fisheri*)

The Fisher's Angelfish is mostly orange with a thin blue outline highlighting the belly and anal fin, the caudal fin is pale yellow. Adults attain a length of only 2 inches. This angelfish is found throughout Hawai'i and the Johnston Atoll (Lobel 2003). Small groups have been observed feeding on algae and

small shrimp associated with coral along outer reef slopes at depths between 10 and 200 feet (Pyle 2001). This species is hermaphroditic and changes sex as it matures. It is distributed from the east coast of Africa to the islands of French Polynesia and Hawaiian Islands and in the western Pacific from southern Japan to New South Wales (Randall 2007).

Fisher's Angelfish are broadcast spawners, with males and females simultaneously releasing eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Fisher's Angelfish at the 0-98 foot depth in hardbottom habitat was approximately 666,209 individuals. WHAP could not produce estimates of this species because the species occurs in habitats not adequately surveyed by WHAP transects.

The Fisher's Angelfish is a DLNR SGCN (Section 4.4.3) but is considered a species of 'Least Concern' by the IUCN (2017).

4.4.1.40 Eyestripe Surgeonfish (Palani) (*Acanthurus dussumieri*)

The Eyestripe Surgeonfish is found throughout the Indo-Pacific region. This large surgeon fish can reach lengths of 21 inches with a body that is mostly yellow with purple highlights. A characteristic bright yellow band goes behind each eye to the gill cover (Myers 1991). The tail is blue to dark purple.

The Eyestripe Surgeonfish feeds on both green and brown algae and detritus from the ocean floor (Myers 1991), and are commonly found along clear corals, lagoons, and outer reefs at depths of 13 to 430 feet. Adults are usually observed alone and pair only for mating (Myers 1999).

Eyestripe Surgeonfish are broadcast spawners. Many broadcast spawners migrate to the edge of the reef drop off to spawn at dusk or dawn (Thresher 1984). Males and females simultaneously release eggs and sperm into the water column where the eggs are fertilized before floating to the surface until they hatch 20-30 hours later (Thresher 1984).

CREP (2018) data indicate that the 2016 island of Hawai'i population of Eyestripe Surgeonfish at the 0-98 foot depth in hardbottom habitat was approximately 578,835 individuals. WHAP could not produce estimates of this species because the species occurs in habitats not adequately surveyed by WHAP transects.

4.4.2 Non-White List Wildlife Species

Marine species in Hawai'i include over 1,200 species of fishes, with around 500 species adapted to live on coral reefs, and the rest adapted to the pelagic open surface waters, mesopelagic, or bathypelagic zones (middle or deep waters), estuaries, or sandy bottoms (DLNR 2015). At the top of the food chain are the apex predators such as the many sharks and large predatory reef and pelagic fishes of Hawai'i. Over 5,000 marine invertebrates are known from Hawai'i and include over 100 species of hard, soft, and precious corals as well as hundreds of types of snails, crabs, shrimps and small numbers of worms, jellyfish, sponges, starfish, and tunicates (DLNR 2015). Five marine turtles occur in Hawai'i; two are common residents that nest on Hawai'i's beaches and three others are more occasional visitors. All sea turtles are listed as threatened or endangered under the federal Endangered Species Act (ESA) of 1973, as amended. Federal- and state-listed species are discussed in Section 4.4.4.

Approximately 26 species of marine mammals, mostly cetaceans, are considered resident or occasional visitors to Hawai'i. These include the Humpback Whale or koholā (*Megaptera noveangliae*), which migrates during the winter months to Hawaiian waters to breed and give birth each year before returning to feed in Alaskan waters during spring and summer, False Killer Whale (*Pseudorca crassidens*), and the Spinner Dolphin (*Stenella longirostris*) and Bottlenose Dolphin (*Tursiops truncatus*). Humpback Whales and Hawaiian Monk Seals (*Monachus schauinslandi*) are common marine mammals in Hawai'i and are listed as endangered under the ESA (DLNR 2015). All marine mammals are protected by the Marine Mammal Protection Act. Many of the resident whales and dolphins feed on fishes and squids that occur in the moderately deep waters off Hawai'i's coasts.

Approximately 4,100 species of marine invertebrates are known from Hawai'i. Marine invertebrates collected under Aquarium Permits generally include those species that are colorful or aesthetically pleasing. Between 2000 and 2017 over 93% (2,066,025 individuals) of all invertebrates collected under Aquarium Permits were reported collected from the island of O'ahu. This is likely due to White List restrictions in West Hawai'i. In East Hawai'i, non-White List species may be collected, and invertebrates make up approximately 58% of the total catch of White List and non-White List species combined.

Of the approximately 249,000 invertebrates collected in East Hawai'i since 2000, over 73% (182,710 individuals) were Red Pond Shrimp (species not specified). Red Pond Shrimp (primarily *Halocaridina rubra*) also makes up 42.5% of all species collected in East Hawai'i. Other common species of invertebrates captured in East Hawai'i include hermit crabs (species not specified), Feather Dusters Worms (*Sabellastarte spectabilis*), and Zebra Hermit Crabs (*Calcinus laevimanus*).

4.4.2.1 Red Pond Shrimp

This group of species live in underground (hypogean) environments and in anchialine ponds (landlocked ponds with a mix of freshwater and seawater through underground connections to the sea). Of the eight known species to occur in Hawai'i, all are endemic to the Hawaiian Archipelago (including Johnston Atoll) except *Antecaridina lauensis*, *Calliasmata pholidota*, and *Metabetaeus lohena* are found throughout Hawai'i and also in Chile (US Fish and Wildlife Ecos Environmental Conservation 12/2015). *Halocaridina rubra* ('Ōpae 'ula) reaches 0.5 inch in length and is an herbivore that grazes on algal, bacterial, and diatom films growing on rocks and other hard substrates. They can also filter feed in mid-water and at the

Affected Environment

surface. The other species are all larger (up to two inches long) and some are predatory. All have red color and reduced appendages. 'Ōpae 'ula carry about 12 fertilized eggs under their abdomen for a brood period of about 38 days. They reproduce 1-2 times per year. Lifespan of 'Ōpae 'ula is long, up to 20 years in captivity. Less is known about the life history of the other species, but they are relatively long-lived for species in their taxa.

No population estimates are available for Red Pond Shrimp.

4.4.2.2 Hermit Crab (various species)

Because specific species of hermit crabs are not reported on aquarium permits reporting forms, it is not possible to know which species are collected, with the exception of zebra hermit crabs (Section 4.4.2.3). However, hermit crabs are one of the most common types of tide pool animals. They rely on empty snail shells for protection. Most species will scavenge the reefs consuming fish, other invertebrates, or algae. Some will display a variety of coloration and elaborate eye colors. Approximately 23 species of hermit crabs are known from Hawai'i shorelines.

No population estimates are available for hermit crabs.

4.4.2.3 Zebra Hermit Crab (*Calcinus laevimanus*)

This species of hermit crab is found in a large area of the Indo-Pacific, extending from Africa to Australia and Japan to Hawai'i. The common name comes from the coloration, black and white pincers, and white bands on dark legs. They also have orange and sky-blue eyestalks. They prefer to inhabit gastropod shells in intertidal flats, reef flats, and rock platforms, and may also be found in mangrove areas on sand mud bottoms and on rocky shores (Rahayu 2000).

No population estimates are available for Zebra Hermit Crabs.

4.4.3 Hawai'i Species of Greatest Conservation Need

Species of Greatest Conservation Need (SGCN) are identified in Hawai'i's State Wildlife Action Plan (SWAP) but are not threatened, endangered, or otherwise legislatively protected species. In fact, all three SGCN species noted below (and further discussed in Section 5) are listed as species of 'Least Concern' by the IUCN (2017). However, recognizing the need to act to protect endemic species, the DLNR identified Hawai'i's indigenous SGCN in Exhibit 1 of Hawai'i Administrative Rules Chapter 124. This list includes terrestrial mammals, marine mammals, and marine reptiles only. Additional native species were identified and added based on their presence on the following lists (DLNR 2018):

- The Federal list of threatened, endangered, candidate and concern species;
- Species protected by the U.S. Marine Mammal Protection Act;
- The State list of threatened and endangered species;
- The Checklist of the Birds of Hawai'i; and

Affected Environment

- Species identified as present in Hawai'i by groups or organizations with significant experience or expertise (e.g., Audubon Watch List; national and regional Bird Plans, such as the U.S. Shorebird Conservation Plan, Waterbird Conservation for the Americas; Regional Seabird Conservation Plan).

In addition to the above lists, for any terrestrial indigenous species not represented by any of the lists, their status as indigenous automatically included them as Hawai'i's SGCN. For aquatic fishes and invertebrates, endemic species were added to the list (DLNR 2018). The DAR also included native species on the International Union for the Conservation of Nature and Natural Resources' (IUCN) Threatened Red List, and the Convention on International Trade in Endangered Species (CITES) list. A Statewide Aquatic Wildlife Conservation Strategy (SAWCS) Advisory Council was developed to advise on additional species that were at risk due to specific threats. The SAWCS Advisory Council is a panel with representatives from federal and state agencies, resource user groups, and non-profit organizations that helps the DAR develop its CWCS (DLNR 2018).

Additional species considered must meet one or more of the following biological criteria (DLNR 2018):

- Species with low or declining populations;
- Species indicative of the diversity and health of the state's wildlife;
- Species with small, localized "at-risk" populations;
- Keystone species;
- Indicator species;
- Species with limited dispersal;
- Disjunct species;
- Vulnerable species;
- Species of conservation concern;
- "Responsibility" species, (i.e., species that have their center of range within a state); and,
- Species with fragmented or isolated populations.

Currently 25% of fish, 20% of mollusks, 18% of algae, and 20% of the corals are considered endemic to Hawai'i and listed as SGCN species (Randall 2007, DLNR 2015).

As a result of these parameters, three White List species occur on Hawai'i's SGCN list:

1. Psychedelic Wrasse
2. Tinker's Butterflyfish

3. Fisher’s Angelfish.

The DLNR SWAP (2015) addresses these species and identifies the following actions to ensure the species conservation and sustainability:

1. Conservation Actions: The goals of conservation actions are to not only protect current populations, but to also establish further populations to reduce the risk of extinction. Commercial licenses are required for aquarium collectors. In addition to common statewide and island conservation actions, specific actions include:
 - Restoration of habitat; and,
 - Maintaining healthy populations with appropriate fishing regulations and education.
2. Monitoring:
 - Continue to survey for populations and distribution in known and likely habitats.
3. Research Priorities:
 - Improve understanding of factors affecting the species population size and distribution; and,
 - Support aquaculture research to develop captive breeding for species used in the aquarium trade.

4.4.4 Threatened and Endangered Wildlife Species

A total of 8 federal, and 10 state-listed threatened or endangered marine species, consisting of one seal, four whales, and five sea turtles, occur in Hawai’i (Table 5). Federal endangered species are those species that the US Fish and Wildlife Service (USFWS) define as being in danger of becoming extinct, while threatened species are those likely to become endangered in the foreseeable future. State endangered species are those defined by the DLNR as in danger of becoming extinct at a state level, while threatened species are those likely to become endangered in the foreseeable future at the state level. No species collected by aquarium fishers occur on the state or federal list of threatened and endangered species.

Table 5. Threatened and endangered marine species of Hawai’i.

Common Name	Scientific Name	State Status	Federal Status
Mammals			
Hawaiian Monk Seal	<i>Neomonachus schauinslandi</i>	E	E
Fin Whale	<i>Balaenoptera physalus</i>	E	NA
Humpback Whale	<i>Megaptera novaeangliae</i>	E	E
Sperm Whale	<i>Physeter catodon</i>	E	E
False Killer Whale	<i>Pseudorca crassidens</i>	E	NA
Reptiles			
Pacific Leatherback Sea Turtle	<i>Dermochelys coriacea schlegelii</i>	E	E

Common Name	Scientific Name	State Status	Federal Status
Pacific Hawksbill Sea Turtle	<i>Eretmochelys imbricata bissa</i>	E	E
Loggerhead Sea Turtle	<i>Caretta</i>	T	T
Green Sea Turtle	<i>Chelonia mydas</i>	T	T
Olive Ridley Sea Turtle	<i>Lepidochelys olivacea</i>	T	T

4.4.5 Reef Habitat

Stretching for more than 1,200 miles in the Central Pacific, Hawaiian coral reefs account for about 85% of all coral reefs in the United States. More than 500 species of algae also live in Hawai'i's coral reefs providing food for fish and oxygen for all marine life. The oceans' algae provide more oxygen than all land plants worldwide combined. There are 78 species of endemic marine algae, 24 species of endemic freshwater algae, and two aquatic plants included on Hawai'i's list of SGCN (DLNR 2015).

Hawai'i's reefs are unique among the world's reef ecosystems. Compared to coral reefs in the Indo-Pacific or Caribbean, Hawaiian reefs are relatively young. Hawai'i reefs are therefore dominated by hard corals (as opposed to sponges, tunicates, and soft corals) and are inhabited by distinctive reef fish and other marine life. Most stony corals grow very slowly. Hawai'i hosts about 40 species of hard, reef building corals (MRC 2017). Due to Hawai'i's extreme isolation, an estimated 25% of the coral reef species are found nowhere else.

Stony corals are defined by Hawai'i Administrative Rule 13-95 as any species belonging to the Order Scleractinia (marine corals which generate a hard skeleton). All reef corals, including mushroom corals, belong to this order (DAR 2014b). The animals which form stony corals belong to the same major group as jellyfish and anemones. Most of them are colonial, and all secrete a hard skeleton made of calcium carbonate. The animals themselves, called polyps, form the outer living layer of a coral colony. Each polyp sits in a cup-like depression called a calyx. Most stony corals grow very slowly and can take hundreds of years to recover from damage (DAR 2014b).

The characteristic color of many living corals is due to the presence of single-celled algae, called zooxanthellae, which live inside the coral polyp. The coral and algae have a symbiotic relationship. Most stony corals produce colonial forms that are attached to the substrate, but a few are solitary and unattached (DAR 2104b).

Ecosystem indicators related to benthic reef community integrity indicate a shift in West Hawai'i towards lowered reef accretion and reduced structural complexity. Hard coral cover, an indicator of reef topographic complexity, habitat structure, and reef accretion, decreased from an average of 44% to 31% cover in the North from 2003 to 2014, a decline of roughly one-third in just 12 years (Gove et al. 2016). However, over the same time period, hard coral cover remained relatively constant in the South (Gove et al. 2016). The ratio between the cover of calcifying to non-calcifying organisms – an indicator of coral reef community dynamics and the extent to which a given system is dominated by organisms that contribute to coral reef development and persistence – declined across West Hawai'i since 2003 (Gove et al. 2016). The North experienced the biggest change in this indicator, with the a calcified: non-calcified ratio decreasing by approximately half to a present value of <1, indicating the benthic community is currently dominated by non-calcifying benthic organisms (Gove et al. 2016).

4.4.5.1 Corals Common to Hawai'i (DAR 2014b)

4.4.5.1.1. Rose or Cauliflower Coral (*Pocillopora meandrina*)

The most common *Pocillopora* in Hawai'i, this coral prefers wave-agitated environments, and is found at depths to about 150 feet. Commonly called "rose coral" or "cauliflower coral," the colonies form cauliflower-shaped heads about 10 to 20 inches in diameter. Branches are heavy and leaf-like, and fork bluntly near the ends. All branches have wart-like projections called verrucae that are covered with calices. Color of living colonies ranges from brown to pink.

4.4.5.1.2. Lace Coral (*Pocillopora damicornis*)

This delicate and fragile coral forms small bushy clumps up to about 6 inches in diameter. Colonies consist of fine branches covered with calices. These branches range from long and slender in calm waters to more robust forms in areas of wave action. Sometimes the skeleton will create pocket formations around a crab that lives among the branches. Usually found in protected areas and inner portions of large reef flats, this species appears to strongly depend on sunlight, as it is rarely found below about 30 feet. Colonies range in color from light brown in shallow waters to dark brown in deeper waters.

4.4.5.1.3. Antler Coral (*Pocillopora eydouxi*)

Colonies consist of thick pipe-like branches that resemble moose antlers. This species also possesses verrucae and is usually found in depths of 35 to 150 feet. Live colonies are brown in color and usually darker than other Pocilloporid corals.

4.4.5.1.4. Lobe Coral (*Porites lobata*)

This coral produces many encrusting or massive forms on the reef from the intertidal zone to depths of over 180 feet. Long narrow cracks found on the coral heads are produced by a type of alpheid shrimp. Calices have a snowflake-like appearance and are shallow and flush to the surface. Living colonies range in color from yellowish-green to brown and sometimes blue.

4.4.5.1.5. Finger Coral (*Porites compressa*)

Distinguishing features are the finger-like branching and shallow snowflake-shaped calices. This species is most common in wave-protected areas like bays or deeper reef slopes to depths of about 150 feet. It has many growth forms, but all of them show some sort of fingerlike branching. Color of live colonies ranges from light brown to light yellowish-green.

4.4.5.1.6. Rice Coral (*Montipora capitata*)

The most obvious characteristic of this coral is the nipple-like projections (papillae) that cover the surface. These papillae are smooth with no calices on them. Calices are found on the upper surface of the coral between the papillae. The image of the calices and papillae create a "rice & pepper" appearance. This species is found at depths up to about 150 feet. It has a number of growth forms ranging from platelike to branchlike and encrusting types. Color of living colonies is usually brown. If the colony is growing in a plate form, the edges may be white.

4.4.5.1.7. Mushroom or Razor Coral (*Fungia scutaria*)

This solitary (single polyp), free-living (unattached) coral is most commonly found on reef flats, frequently between cracks and crevices. It has also been found at depths of over 75 feet. Its disk-like, elliptical shape resembles a mushroom cap and ranges from 1.5 to 7 inches in diameter. Some adults may form a high arch in the middle. Immature forms are attached to the substrate or an adult mushroom coral by a stalk. It grows into a disk and, when large enough, breaks off the stalk and becomes free-living. The color of live specimens ranges from pale brown in bright sunlight to dark brown in shady areas or deeper water.

4.4.5.1.8. Cup or Tube Coral (*Tubastraea coccinea*)

This is a common non-reef building coral found in shallow Hawaiian waters. This species forms large calices and occurs in clumps that are 2 to 4 inches in diameter. Living tissue is usually bright orange in color but may also appear pink or even black. The bright coloration is not produced by zooxanthellae. This coral is usually found on steep ledges, in caves and in shady tidepools.

4.4.6 Invasive Species

From *A Guidebook of Introduced Marine Species in Hawai'i* (DeFelice et al. 2001):

Through the Hawai'i Biological Survey at Bishop Museum, a count of the total number of species in the Hawai'i Archipelago has been compiled. In 1999, there were 23,150 known species of terrestrial and aquatic algae, plants, and animals, including 5,047 nonindigenous species (~20%). The total number of marine and brackish water alien species in the Hawaiian Islands was 343, including 287 invertebrates, 24 algae, 20 fish, and 12 flowering plants.

The 287 alien marine invertebrate species make up about 7% of the known marine and brackish water invertebrate fauna in the Hawaiian Islands (4,099 species). Arthropods have been the most successful marine invaders, with 71 suspected alien crustacean species, while 53 alien mollusks have made it to Hawai'i. Limited information exists for these invasive species.

The greatest number of introduced marine invertebrates have arrived to Hawai'i through hull fouling, but many have also arrived with solid ballast and in ballast water. DeFelice et al. (2001) considered 201 species (70%) to be introduced, and 86 species (30%) cryptogenic (not demonstratively native or introduced). Two hundred forty-eight (87%) have become established, 15 (5%) arrived but failed to become established, 6 (2%) were intercepted, and the population status of 18 species (6%) is unknown.

The nonindigenous invertebrate species in the Hawaiian Islands are primarily of Indo-Pacific/Philippines Islands region origin. A surprising number of species from the tropical western Atlantic/Caribbean region have invaded Hawai'i as well.

Invasive algae pose the largest threat to Hawai'i's reef ecosystem. The five most common algae species posing the largest threat include Smothering Seaweed (*Kappaphycus* and *Euchema* spp.), Gorilla Ogo (*Gracilaria salicornia*), Leather Mudweed (*Avrainvillea amadelpha*), Hook Weed (*Hypnea musciformis*),

and Prickly Seaweed (*Acanthophora spicifera*). Marine debris arriving from other countries and regions and ballast water/biofouling are the primary threat for invasion in the Hawaiian Islands.

Invasive fish species of concern in Hawai'i include two White List species: the Bluestripe Snapper (Taape), and Peacock Grouper (= Roi, Bluespot Peacock Grouper). The Blacktail Snapper (*Lutjanus fulvus*) is less common but can become invasive once established. All three species were introduced between 1956-1961, mostly as game fish (IUCN 2017). However, the Peacock Grouper is a known carrier of Ciguatera, which is well known by the local fishermen, and therefore its use as a food fish is intentionally very limited (BIAAF, pers. comm.).

The Bluestripe Snapper (Section 4.4.1.33) and Peacock Grouper (Section 4.4.1.34) are well established in Hawai'i. The Blacktail Snapper occurs at low densities only in the lower Hawaiian Islands (Randall 1987, Gaither et al. 2010 *in* IUCN 2017). From 2008 through 2014, regional estimates of the density of Blacktail Snapper ranged from 1.8 to 14.1 individuals per 2.5 acres over hard bottoms to 98.5 feet depth in Pacific coral reef areas surveyed by NOAA (NOAA unpublished data as described in Heenan et al. 2014 *in* IUCN 2017). The highest recorded density was in the MHI region (0.3 to 45.1 individuals per 2.5 acres) as compared to the lowest in the Southern Mariana Islands region (0 to 4.3 individuals; IUCN 2017).

4.4.7 Biological Aspects of the Commercial Aquarium Fishery

4.4.7.1 West Hawai'i Aquarium Project (WHAP) Surveys

To monitor and gauge the effects of the aquarium fishing industry, the West Hawai'i Aquarium Project (WHAP) established 25 study sites (Figure 4) along the West Hawai'i coastline in early 1999 at 9 FRA sites, 8 Open Area sites (aquarium fish collection areas) and 6 previously established MPAs to collect baseline data both prior to and after the closure of the FRAs. The MPAs are MLCDs and FMAs, which have been closed to aquarium collecting for at least 16 years and were presumed to have close to "natural" levels of aquarium fish abundances (DAR 2014a). They serve as a reference or 'control' to compare with the FRAs and Open Areas. It should be noted that after several years of study and observation, one of the MPA sites (Lapakahi MLCD – subzone B), was found not to be closed to aquarium collecting due to its remoteness and poorly defined seaward boundaries (i.e., 500 feet offshore). As such, the Lapakahi survey site was considered an Open Area for data analysis purposes (DAR 2014a).

The overall goals of the WHAP were two-fold: 1) To evaluate the effectiveness of the FRA network by comparing targeted aquarium fishes in FRAs and Open Areas relative to adjacent control sites and, 2) To evaluate the impact of the FRA network on the commercial aquarium fishery (DAR 2014a).

Detailed explanations of the study sites and survey methods are found in Tissot et al. (2004) and Walsh et al. (2013). To briefly summarize: Densities of all fish and selected invertebrate species were visually estimated along four 82x13 foot strip transects at each of 25 permanent sites located at depths between 30-60 feet in the three types of management areas. All survey divers either had extensive experience in conducting underwater fish surveys in Hawai'i or received training through the UH's Quantitative Underwater Ecological Survey Techniques (QUEST) training course prior to collecting data (Hallacher

and Tissot 1999). In addition to the transect surveys, a 10 minute ‘free-swim’ survey is also conducted by two divers in the areas surrounding the actual transects. The purpose of this survey is to better census uncommon or rare species and species of particular ecological interest such as Bluestripe Snapper, Peacock Grouper, terminal phase parrotfish (Family Scaridae), cleaner wrasses (*Labroides* spp.) and Crown-of-Thorns Starfish (*Acanthaster planci*). All sites are presently surveyed four times per year. As of December 2014 (the most recent year for which data are available), a total of 75 survey rounds of all study sites have been completed (>6,500 transects). Six rounds were conducted prior to FRA closure in 1999 (DAR 2014a).

Table 6 provides West Hawai’i Open Area population estimates of those species on the White List based on the WHAP data. It is important to note that population estimates provided in the table and previous life histories sections, only include West Hawai’i estimates of fish from Open Areas at depths of 30-60 feet (the depth at which WHAP surveys are conducted); thus, the actual population size of each species is likely greater due to individuals at other depths, in unsurveyed areas (e.g., within the FRAs). Island-wide population estimates for each species are described in Section 4.4.1 and summarized in Table 15.

Table 6. West Hawai’i Open Area population estimates of all White List species based on WHAP data and percent of that population taken annually by aquarium fishers at the 30’-60’ depth in 2012/2013 (DAR 2014a).¹

Common Name	Scientific Name	Endemic	Catch ¹	30’- 60’ Open Area Population ²	Catch as % of 30’-60’ Open Area Population ³
Achilles Tang	<i>Acanthurus achilles</i>	N	7,073	21,627	32.70%
Yellow Tang	<i>Zebbrasoma flavescens</i>	N	273,778	1,663,775	17.26%
Black Surgeonfish (chevron tang)	<i>Ctenochaetus hawaiiensis</i>	N	4,045	34,678	11.66%
Shortnose (Geoffroy’s) Wrasse	<i>Macropharyngodon geoffroy</i>	Y	258	3,222	8.01%
Goldrim Tang	<i>Acanthurus nigricans</i>	N	439	7,517	5.83%
Fourspot Butterflyfish	<i>Chaetodon quadrimaculatus</i>	N	699	22,000	3.18%
Orangeband (Shoulder) Surgeonfish	<i>Acanthurus olivaceus</i>	N	698	26,101	2.67%
Orangespine Unicornfish (Clown Tang)	<i>Naso lituratus</i>	N	4,026	150,642	2.67%
Forcepsfish	<i>Forcipiger flavissimus</i>	N	1,045	43,999	2.38%
Spotted Boxfish (Boxfish)	<i>Ostracion meleagris</i>	N	175	9,322	1.88%
Yellowtail Coris (Clown Wrasse)	<i>Coris gaimard</i>	N	288	19,762	1.45%
Milletseed (Lemon) Butterflyfish	<i>Chaetodon miliaris</i>	Y	61	7,085	0.85%
Kole (Goldring Surgeonfish, Yelloweye, Goldring)	<i>Ctenochaetus strigosus</i>	Y	28,407	3,616,529	0.79%
Pencil Wrasse	<i>Pseudojuloides cerasinus</i>	N	108	19,390	0.56%
Bird Wrasse	<i>Gomphosus varius</i>	N	180	43,254	0.42%
Blacklip Butterflyfish (Coral Butterflyfish)	<i>Chaetodon kleinii</i>	N	23	5,593	0.40%
Potter’s Angelfish	<i>Centropyge potteri</i>	Y	945	237,149	0.40%
Ornate Wrasse (Pinkface)	<i>Halichoeres ornatissimus</i>	N	724	192,404	0.38%

¹ Data presented in this table (DAR 2014a 2015 Report to Legislature) may differ from other publications, text sections, or tables due to time of year data were analyzed, number of monthly reports available to DAR at the time of report, and Hawai’i’s confidentiality laws.

Affected Environment

Common Name	Scientific Name	Endemic	Catch ¹	30'- 60' Open Area Population ²	Catch as % of 30'-60' Open Area Population ³
Black Durgon	<i>Melichthys niger</i>	N	71	38,033	0.19%
Gilded Triggerfish (Blue-throat Triggerfish)	<i>Xanthichthys auromarginatus</i>	N	19	11,186	0.17%
Lei Triggerfish	<i>Sufflamen bursa</i>	N	128	76,440	0.17%
(Forster's) Blackside Hawkfish	<i>Paracirrhites forsteri</i>	N	31	20,508	0.15%
Thompson's Surgeonfish	<i>Acanthurus thompsoni</i>	N	130	91,728	0.14%
Pyramid Butterflyfish	<i>Hemitaurichthys polylepis</i>	N	73	56,677	0.13%
Multiband (Pebbled) Butterflyfish	<i>Chaetodon multicinctus</i>	Y	670	580,196	0.12%
Hawaiian Dascyllus (Domino)	<i>Dascyllus albisella</i>	Y	43	57,796	0.07%
Saddle Wrasse	<i>Thalassoma duperrey</i>	Y	327	537,688	0.06%
Redbarred Hawkfish	<i>Cirrhitops fasciatus</i>	N	6	9,665	0.06%
Eightline Wrasse	<i>Pseudocheilinus octotaenia</i>	N	35	187,557	0.02%
Fourlined Wrasse	<i>Pseudocheilinus tetrataenia</i>	N	47	327,758	0.01%
Brown Surgeonfish (Lavender, Forktail Tang)	<i>Acanthurus nigrofuscus</i>	N	180	1,646,996	0.01%
Hawaiian Whitespotted Toby (Puffer)	<i>Canthigaster jactator</i>	Y	20	250,573	0.01%
Bluestripe Snapper (Taape)	<i>Lutjanus kasmira</i>	N	0	7,830	0.00%
Peacock Grouper (Roi, Bluespot Peacock Grouper)	<i>Cephalopholis argus</i>	N	0	24,610	0.00%
Psychedelic (Redtail) Wrasse	<i>Anampses chrysocephalus</i>	Y	236	N/A	N/A
Tinker's Butterflyfish	<i>Chaetodon tinkeri</i>	N	206	N/A	N/A
Longfin Anthias	<i>Pseudanthias hawaiiensis</i>	Y	130	N/A	N/A
Flame Wrasse	<i>Cirrhilabrus jordani</i>	Y	67	N/A	N/A
Fisher's Angelfish	<i>Centropyge fisheri</i>	N	58	N/A	N/A
Eyestripe Surgeonfish (Palani)	<i>Acanthurus dussumieri</i>	N	1	N/A	N/A

N/A – Species occurs in habitats not adequately surveyed by transects

¹ Average aquarium catch over FY 2013-2014

² Estimate of total numbers of fish in collected Open Areas of hard bottom habitat in 30'- 60' depths

³ Species' population in collected Open Areas taken annually by aquarium collectors

A summary of the DAR 1999 to 2014 study findings is presented below (DAR 2014a):

- Of the 40 collected aquarium species, Yellow Tang made up 84.3% of the total and Kole 8.3% (2014).
- Fifteen years after closure, the population of Yellow Tang has increased 64.5% in the FRAs while its abundance in the Open Areas has not declined significantly.
- Outward movement of adult Yellow Tang from protected areas into surrounding areas ('spillover') augments adult stocks in Open Areas up to a 0.6 mile or more away.
- Overall Kole abundance in 30-60 foot depth range over the entire West Hawai'i coast increased by over 2.1 million fish.
- Commercial aquarium landings of Achilles Tang, have declined in West Hawai'i over the past two decades in association with a recent dramatic increase in its value. This is strongly suggestive of declining availability (i.e. abundance). (Addressed in Section 5.4.1.2 – Achilles Tang).

Affected Environment

- Achilles Tang have declined in FRAs and Open Areas over the last 15 years tempered somewhat by a slight increase in the last year or two (2014). However, Achilles Tang numbers have increased in MPAs over the last four years (2014). Open Area populations are higher than FRA. Achilles Tang has had low levels of recruitment over the past decade and substantial numbers of larger fish (i.e., 'breeders') are taken for human consumption.
- Of the other top 10 collected aquarium species, two species (Forcepsfish and Potter's Angelfish) increased in one or more of the management areas while two species (Ornate Wrasse (Pinkface) and Fourspot Butterflyfish) declined. While the latter two species declined in the Open Areas, they also declined in one or the other of the protected areas (FRA or MPA) suggesting that factors other than aquarium collecting were also affecting their populations.
- For 24 other species on the White List, five showed a significant population increase in one or more of the management areas while 11 decreased. Of the species which declined, only a single one, Bird Wrasse declined exclusively in the Open Areas indicating that factors other than aquarium collecting were also affecting the populations of the other species.
- For most of the species on the White List, collecting impact, in terms of the percentage of the population being removed annually, is relatively low with 8 species having single digit percent catch and 23 species having catch values <1%.
- In terms of the yearly differences in a species' abundance between the Open Areas and the FRAs, 6 species have been consistently more abundant in the FRAs than in the Open Areas. Eleven species showed no consistent pattern and 17 species were consistently more abundant in the Open Areas.
- Survey data are lacking for six species which typically occur in deep water.
- In terms of reef fish biomass caught by the different fisheries in West Hawai'i, considerably more biomass is taken by the combined recreational and commercial (non-aquarium) fisheries either including Yellow Tang (2.8X) or excluding it (8.6X). The total take of reef fish by commercial and non-commercial ('recreational') fishers on other Main Hawai'i Islands greatly exceeds the numbers and biomass of the fish taken by aquarium collectors.
- The 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.

The Psychedelic Wrasse, Tinker's Butterflyfish, and Fisher's Angelfish are all listed as SGCN in Hawai'i (Section 4.4.3). They are not federal- or state-listed as threatened or endangered species (Section 4.4.4) and are not currently afforded any protection from collection. The Psychedelic Wrasse is endemic to the Hawaiian Islands and is found among seaweed coral reefs at depths from 40-450 feet (Lieske and Myers 1994) and are the most abundant in the Northwestern side of the island (BIAAF, pers. comm.); Tinker's Butterflyfish is found deeper than 100 feet on coral reef slopes (Pyle 2001); and, Fisher's Angelfish have been observed feeding on algae and small shrimp associated with coral along outer reef slopes at depths between 10 and 200 feet (Pyle and Myers 2010). Adequate population estimates based on WHAP data (30-60 feet depth) are not available to assess the impact of continued aquarium collection on these three

species due to their deeper water habitats. However, based on deep diver observations, Tinker's Butterflyfish and Psychedelic Wrasse are substantially more common in the long term protected areas (MPAs). Commercial aquarium fishers generally do not fish in the deeper waters in which these species occur. In 2017, there were 599 Psychedelic Wrasse, approximately 290 Tinker's Butterflyfish (n.d. in East Hawai'i), and 288 Fisher's Angelfish collected by aquarium fishers on the island of Hawai'i (DAR 2018a).

4.4.7.2 Coral Reef Ecosystems Program (CREP; now known as the Ecosystem Science Division) Surveys

The NOAA has been involved in a large-scale monitoring program that surveys coral reef fish assemblages and habitats, including White List species, encompassing the bulk of the US-affiliated tropical Pacific. This effort, formerly known as the Coral Reef Ecosystem Program (CREP), has included over 5,500 surveys around 39 islands, including the island of Hawai'i. The dataset was developed as a resource that could be used to understand how human, environmental, and oceanographic conditions influence coral reef fish community structure, providing a basis for research to support effective management outcomes (CREP 2018).

In 2010, the Pacific Reef Assessment and Monitoring Program (RAMP) developed and implemented a standardized survey methodology focusing on reef fish and paired benthic habitat-monitoring using monitoring methods specified in the National Coral Reef Monitoring Plan (NCRMP). The aim of the current systematic sampling design is to maximize survey site replication, while the overarching goal was to generate data representative of coral reef hardbottom substrate at the islands-scale (CREP 2018).

Surveys were conducted around the island of Hawai'i in 2010 and 2013–2016 at 257 stationary point count locations (Figure 4) with a randomized depth-stratified design, at depths from 0-98 feet (approximately 0-30 meters). At each point count location, divers conducted fish counts, estimated benthic cover, and habitat structural complexity. Typically, 3–5 days were spent at each island during each visit (generally once every 3 years), conducting 30–50 fish surveys during that time. Detailed explanations of the study sites and survey methods are found in Heenan et. al (2017). To establish survey points, an approximately 98-foot (30-meter) transect is measured out along the substrate. For each point count, a pair of divers conducts simultaneous counts in adjacent 49.2 foot (15 meter) cylindrical plots along the transect (i.e., diver 1 surveys from the 7.5 meter mark along the transect and diver 2 surveys from the 22.5 meter mark) extending from the substrate to the limits of vertical visibility (Heenan et. al 2017).

Each fish count consists of two parts, a 5-minute species enumeration in which divers generate a list of taxa observed within their cylinder to species when possible; and, a tally portion in which divers systematically work through their species list recording the number and estimated size of fish present within the cylinder. Tallying is done by conducting a series of rapid visual sweeps of the plot with one species-group (e.g., mid-water, surgeonfish, benthic butterflyfish) counted per sweep. At the end of the sweeps, divers carefully search for small, site-attached, and semi-cryptic species. Surveys were not conducted if horizontal visibility was <25 feet (Heenan et. al 2017).

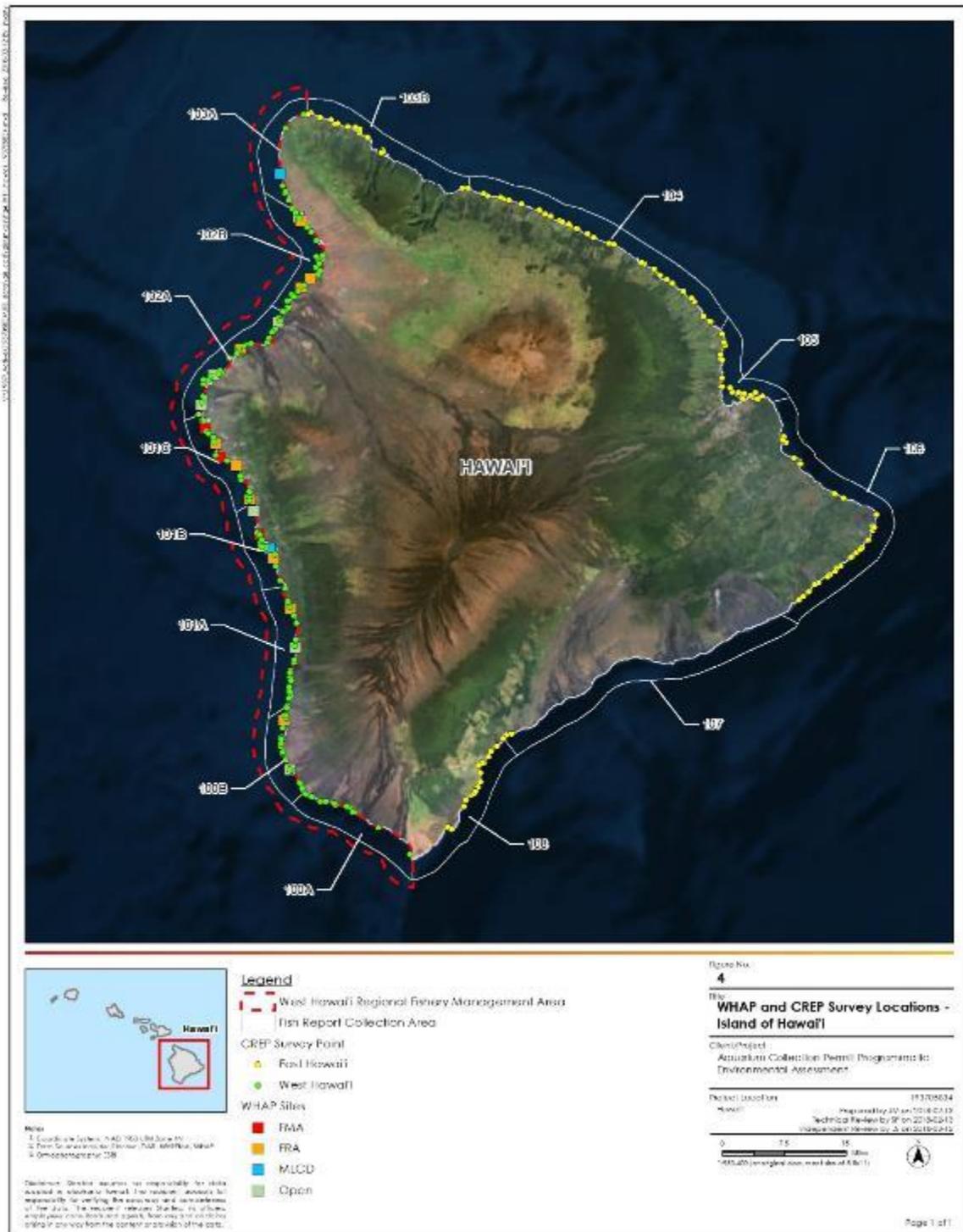


Figure 4. WHAP and CREP survey locations – Island of Hawai'i.

To facilitate analysis in this FEA, estimated population size for each White List species for the island of Hawai'i was calculated using CREP data by converting survey counts to abundance per unit area, and then multiplying by the estimated area of hardbottom habitat in <30 meters of water (16,840 Ha).

Although CREP data are the most comprehensive data publicly available for the island of Hawai'i, certain limitations of the surveys may lead to an underestimate of some populations of aquarium fish. Specifically, surveys are concentrated into a short period of survey effort (about one month each year) located in different locations from one year to the next, allowing for a larger coverage of the entire island, but over five years during a seven-year period. Also, population estimates may be an underestimate for certain species as surveys were only conducted at depths <30 meters (approximately 98 feet), in areas of hardbottom habitat. No data were collected from softbottom habitat, as these tend to not be important habitats for most aquarium species, but certain species may utilize these areas, and therefore are not represented in the population estimate. No data were collected from depths greater than 30 meters (approximately 98 feet), but certain species may utilize these areas as well, and are therefore not represented in the population estimate. In addition, divers are trained in the identification of aquarium fish; however, certain species may be cryptic, skittish, or difficult to identify in the field, which may lead to underestimates of the population of those species. All data collection methods have a range of variation, or uncertainty. For the CREP data, this results in a high and low range for population estimates (Table 15). For the purposes of this FEA, we used the median of those ranges to assess impacts.

4.4.7.3 WHAP and CREP Survey Comparison

Both the WHAP and CREP collect data on fish populations in nearshore waters of the island of Hawai'i that are available and appropriate for estimating population size, within the limitations of each survey (e.g., spatial coverage, depth range), and for analysis of the impact of fish collection under Aquarium Permits. In addition, both surveys collect data on the physical conditions at each survey site. The following provides a side by side comparison of some of the parameters of each survey method.

WHAP	CREP
<ul style="list-style-type: none"> • 25 survey sites with 4 transects (82x13 foot long) each (100 transects total), in specific areas (FRAs, MPAs, Open Areas) along west coast of Hawai'i • 30-60 foot depth survey area • 4-6 survey rounds per year • 87 rounds completed (1999-2017)¹ • Visually estimated fish density, benthic cover, and habitat structural complexity 	<ul style="list-style-type: none"> • 257 point counts covering entire island of Hawai'i except collection zone 107 • 0-98 foot depth survey area • 30-50 surveys once every 3 years • Surveys conducted in 2010, 2013, 2014, 2015, and 2016 • Fish counts, estimated benthic cover, and habitat structural complexity

¹Updated 2017 survey data provided by DAR for Yellow Tang, Achilles Tang, and Kole. Data for the remaining 37 White List species is based on 75 rounds of survey completed between 1999 and 2013.

The WHAP data are collected from 25 transect survey sites located within the WHRFMA (Figure 4) and are designed to estimate fish densities over time within the WHRFMA between depths of 30-60 feet. By

design, the WHAP focuses on the WHRFMA and does not have full spatial coverage of the island of Hawai'i; therefore, data generated by the WHAP cannot be used to develop population estimates for East Hawai'i. In addition, because WHAP estimates population size at depths from 30-60 feet, shallow- and deep-water species (or life phases of species) that spend time outside the 30-60 foot depth range are not adequately surveyed by WHAP transects.

The CREP data are collected on all reef fish species for the Pacific islands, including from 257 stationary point count locations located around the island of Hawai'i, with the exception of collection zone 107 (Figure 4), from depths of 0-98 feet, providing an assessment of fish populations in both shallow and some deep-water habitats. Deep-water species (or life phases of species) that spend time below the 98-foot depth range are not adequately surveyed by CREP.

Differences in study design between the two surveys result in differences in how data are collected and analyzed. However, when CREP data collected at a similar depth as those collected by the WHAP are compared, the population estimates collected by the two surveys are similar. Both data sets are presented and analyzed in this FEA. However, due to the larger spatial coverage and greater range of depths surveyed by the CREP, CREP data were considered to be a better estimator of island-wide fish populations, and therefore serve as the primary basis for the impact analysis found in Section 5.

5.0 ENVIRONMENTAL CONSEQUENCES

This section discusses the impacts of implementing the No Action Alternative, the Status Quo Alternative, and the Achilles Tang Conservation Alternative on resources retained for further analysis. Aspects of the environment that may be affected by the alternatives are discussed to the level of detail commensurate with the potential effect. Those aspects of the environment that would not be affected are discussed briefly. The content, intensity, and likelihood of the impact were taken into consideration in the making of these ratings.

Direct, indirect, and cumulative impacts are evaluated for each resource. The HEPA does not specifically define direct and indirect impacts. As such, for the purposes of this FEA, the National Environmental Policy Act (NEPA) definitions are used. The NEPA defines direct effects as those effects that are caused by the action and occur at the same time and place (40 C.F.R. § 1508.8(a)). Indirect effects include effects later in time or farther removed in distance but are still reasonably foreseeable (40 C.F.R. § 1508.8(b)). Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 C.F.R. § 1508.8).

The HEPA defines cumulative impacts as the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (HAR Section 11-200-2).

Cumulative impacts were analyzed according to a tiered approach, which allows for a resource-specific analysis of regional and local actions and narrows the focus to those impacts with direct influence on the proposed action and agency decision-making. Following this approach, the cumulative impacts analysis focused on potential impacts to White List Species, non-White List Species, SGCN, and reef habitat as these are the resources with the potential for on-going impacts due to commercial aquarium fish collection. The spatial analysis area for cumulative impacts is the nearshore waters of the island of Hawai'i down to 600 feet (100 fathoms), with emphasis on the WHRFMA. Under HRS 188-31, the DLNR may issue an Aquarium Permit not longer than one year in duration; therefore, the temporal scope of the cumulative impacts analysis is 12 months, because an EA with updated data and analysis would need to be completed on an annual basis.

Conclusions of significance are based on the best available data as analyzed in this FEA. The HEPA standards for a significant impact are described in Section 1.2.2. For the purposes of this FEA, impacts were assessed on a descending scale:

1. Significant impact (HEPA standards);
2. Significant impact that is mitigable to less than significant;
3. Less than significant impact;
4. No impact; and
5. Beneficial impact.

5.1 HRS §189-3 AND DATA ANALYSIS

HRS §189-3 states:

(a) Upon the demand of the department, every commercial marine licensee shall furnish to the department a report or reports with respect to the marine life taken and any other information the department may require for the purposes of this section.

(b), "Any information submitted to the department by any person in compliance with any requirement under this section shall be confidential and shall not be disclosed, except when required under court order or pursuant to subpoena issued by the department of the attorney general, or with the prior written consent of the person submitting the information, or under cooperative agreements with government agencies of the United States for exchange and use of the information specifically to manage marine life. The department, by rule, may establish procedures necessary to preserve the confidentiality, except that the department may release or make public any of the information in the aggregate or summary form which does not directly or indirectly disclose the identity of any person who submits information."

The DAR complies with this statute by keeping confidential any catch data when less than three collectors report from an individual collection zone (Figure 1). Collection zones depicted in Figure 1 correspond to areas defined by the monthly report fishers are required to provide to DAR. Confidential data are identified as *n.d.* (not disclosed) in the tables in Section 5.0. The impact of this statute on data analysis is

minimal but can cause confusion when numbers in the text or in the tables do not exactly match up, or do not match previously published reports for which the *n.d.* data were available (i.e., DAR reports). Although it is possible for 1-2 aquarium fishers to collect large numbers of fish and skew the data, this concern was minimized by the manner in which data were analyzed. Data provided by the DAR for this FEA were evaluated using many parameters, thereby minimizing any bias due to confidentiality. The data were also viewed in aggregate and over extended time periods (i.e., 2000-2017) to further minimize confidentiality issues.

5.2 SOCIOECONOMIC RESOURCES

5.2.1 Direct Impacts

As noted in Section 4.1.1, the East Hawai'i aquarium fishery represents only a small portion (4.5%) of the overall value of the fishery on the island of Hawai'i and an even smaller portion of the overall value of the fishery in the state of Hawai'i (Table 7). Table 3 (Section 4.1.1) shows the annual average of the East Hawai'i fishery for the period from 2000-2017 was approximately \$65,000 (inflation-adjusted 2017 dollars), as compared to the \$1.35 million (inflation-adjusted 2017 dollars) of the WHRFMA. Therefore, the focus for this section is on the WHRFMA and its socioeconomic impacts.

For the period 2000 to 2017, the aquarium fishery within the WHRFMA added an average of \$1,354,045 (inflation-adjusted 2017 dollars) annually to the state of Hawai'i's economy, while the overall aquarium fishery within the state of Hawai'i added an average of \$2,075,088 (inflation-adjusted 2017 dollars) to the economy (DAR 2018a, Table 7). Total *ex-vessel* value (i.e., price received by a fisher for the catch) for the WHRFMA ranged from a low of \$699,166 in 2000 to a high of \$1,779,074 in 2010 (inflation-adjusted 2017 dollars). Total *ex-vessel* value for the state of Hawai'i ranged from a low of \$1,273,982 in 2002 to a high of \$2,587,721 in 2015 (inflation-adjusted 2017 dollars) (Table 7). The 2017 *ex-vessel* inflation-adjusted value for the WHRFMA was \$1,290,314, while the state of Hawai'i was \$1,932,747 (Table 7). It should be noted that the dollar value of these fisheries represents only the *ex-vessel* value, what the fishers are paid for their catch, and does not include the value which would be generated by additional dealer and retail sales. The actual economic value of the catch is thus substantially greater than the *ex-vessel* values.

All commercial aquarium collectors must obtain a state aquarium permit and a CML, which allows them to offer the fish for sale. The Aquarium Fish Catch Report requirement is triggered by the CML. Some collectors participate in a dive team. To avoid duplicate fish catch reporting, only a principal diver is required to report the catch and effort for the dive team (DAR, pers. comm., 2018). This process ensures that reported catch data are not duplicated in the State's system. However, this reporting mechanism can lead to confusion by outside observers, as the total number of permit holders is higher than the number of permit holders reporting data (Table 7), giving the appearance of under reporting. The number of non-reporting permit holders is an indicator of industry growth and direct socioeconomic benefits. For the period 2000 to 2017, the total number of permit holders for the WHRFMA ranged from 24 to 63 (average = 46), while the number of permit holders reporting ranged from 19 to 42 (average = 28). In 2017, it is estimated that up to 57 individuals were directly employed in the commercial aquarium fishery in the WHRFMA (up to 226 employed in the state of Hawai'i).

Table 7. Summary of commercial Aquarium Permits and values by year from 2000-2017 for the WHRFMA, East Hawai'i and the State of Hawai'i (Dar 2018a).

Fiscal Year ¹	WHRFMA ²				East Hawai'i				State of Hawai'i ⁴			
	Number of Commercial Aquarium Permits	Number Reporting	Total Value	Total Value Adjusted for Inflation ³	Number of Commercial Aquarium Permits	Number Reporting	Total Value	Total Value Adjusted for Inflation ³	Number of Commercial Aquarium Permits	Number Reporting	Total Value	Total Value Adjusted for Inflation ³
2000	24 ⁵	25	\$491,173	\$699,166	6	3	\$11,832	\$16,842	113	82	\$1,000,750	\$1,424,529
2001	26	23	\$506,749	\$701,776	8	0	\$0	\$0	128	75	\$936,811	\$1,297,351
2002	37	19	\$529,182	\$721,029	n.d. ⁶	n.d. ⁶	n.d. ⁶	n.d. ⁶	139	63	\$935,009	\$1,273,982
2003	30	22	\$666,153	\$887,432	9	0	\$0	\$0	123	68	\$1,174,168	\$1,564,196
2004	53	30	\$866,630	\$1,124,555	n.d. ⁶	n.d. ⁶	n.d. ⁶	n.d. ⁶	145	77	\$1,442,946	\$1,872,392
2005	41	34	\$1,168,265	\$1,466,283	11	3	\$25,263	\$31,707	142	79	\$1,579,370	\$1,982,259
2006	63	34	\$1,459,004	\$1,773,964	11	6	\$74,519	\$90,606	186	87	\$2,093,857	\$2,545,864
2007	61	40	\$1,065,093	\$1,259,154	14	4	\$33,648	\$39,779	195	99	\$1,646,167	\$1,946,101
2008	52	31	\$1,308,629	\$1,489,859	17	9	\$100,304	\$114,195	178	94	\$2,065,816	\$2,351,908
2009	55	30	\$1,159,746	\$1,325,072	13	8	\$84,022	\$96,000	197	92	\$1,894,015	\$2,164,013
2010	60	36	\$1,582,644	\$1,779,074	12	7	\$30,062	\$33,793	178	91	\$2,282,618	\$2,565,925
2011	60	42	\$1,473,530	\$1,605,732	13	6	\$41,238	\$44,938	172	87	\$2,188,227	\$2,384,550
2012	48	28	\$1,504,487	\$1,606,226	16	7	\$79,067	\$84,414	166	77	\$2,306,179	\$2,462,131
2013	45	26	\$1,560,517	\$1,641,994	15	9	\$68,234	\$71,797	153	64	\$2,172,561	\$2,285,993
2014	43	20	\$1,570,057	\$1,625,661	18	7	\$131,086	\$135,728	165	61	\$2,322,564	\$2,404,818
2015	38	19	\$1,701,631	\$1,759,805	13	4	\$104,110	\$107,669	163	69	\$2,502,178	\$2,587,721
2016	37	19	\$1,582,011	\$1,615,713	15	4	\$80,441	\$82,155	166	66	\$2,257,021	\$2,305,104
2017	57	21	\$1,290,314	\$1,290,314	18	4	\$91,790	\$91,790	226	68	\$1,932,747	\$1,932,747
Average	46	28	\$1,193,656	\$1,354,045	13	5	\$59,726	\$65,088	163	78	\$1,818,500	\$2,075,088

¹Fiscal year runs from July 1 through June 30.

²The WHRFMA represents White List fish only, the remainder of the state allows for other aquatic life to be collected.

³<http://www.usinflationcalculator.com/>, adjusted for 2017 values.

⁴These data include *n.d.* data and summation of East and West Hawai'i data, as well as the other islands that make up the state of Hawai'i.

⁵Includes permittee that captured individuals in December 1999, but reported captures in January 2000

⁶Data not disclosed (*n.d.*) due to Hawai'i confidentiality Statute (Section 5.1).

5.2.1.1 No Action Alternative

Under the No Action Alternative, commercial collection of aquarium fish would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods other than fine-mesh nets would continue. Commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, but this is not possible to quantify at this time.

In the WHRFMA, based on historic data, it is estimated that over the 12-month analysis period the commercial aquarium fishery would add approximately \$1,354,045 (inflation-adjusted 2017 dollars) to the state of Hawai'i's economy. Under the No Action Alternative an estimated \$1,354,045 would be eliminated from Hawai'i's economy and potentially over 50 jobs lost from the workforce.

In East Hawai'i, based on historic data it is estimated that over the 12-month analysis period the commercial aquarium fishery would add approximately \$65,088 (inflation-adjusted 2017 dollars) to the state of Hawai'i's economy. Under the No Action Alternative, some aquarium collection may continue using legal gear or methods other than fine mesh nets. Given the limited amount of data on commercial aquarium collection in East Hawai'i since the termination of commercial aquarium permits on October 27, 2017, this economic value cannot be reliably predicted or quantified over the 12-month analysis period.

The No Action Alternative would have a ***less than significant impact*** on Hawai'i's overall and ocean socioeconomic resources.

5.2.1.2 Status Quo Alternative

Based on historic data, under the Status Quo Alternative the commercial aquarium fishery is estimated to add approximately \$1,400,000 (inflation-adjusted 2017 dollars) to the state of Hawai'i's economy over the 12-month analysis period and create over 50 jobs. In 2014, Hawai'i employed 626,146 people and generated \$28.3 billion in wages and \$76.4 billion in gross domestic product. Hawai'i's ocean economy in 2014 employed 111,673 people and generated \$3.9 billion in wages and \$7.4 billion in gross domestic product. The ocean economy accounted for 17.8 percent of Hawai'i's employment, 13.7 percent of its wages, and 9.7 percent of its gross domestic product (NOAA 2017).

The Status Quo Alternative would have a minimal, but ***beneficial direct impact*** on Hawai'i's overall and ocean socioeconomic resources.

5.2.1.3 Achilles Tang Conservation (Preferred) Alternative

The Achilles Tang Conservation (Preferred) Alternative would implement a bag limit of 5 Achilles Tang per day, resulting in an estimated 50% reduction in the number of Achilles Tang taken by the commercial aquarium fishery. Estimated value of the Achilles Tang catch in the WHRFMA since the 2014 bag limit was imposed has been \$135,627 (2015), \$129,876 (2016), and \$130,853 (2017). The worst-case scenario under the Achilles Tang Conservation (Preferred) Alternative would be that the income from Achilles Tang will be cut in approximately half (average of \$66,059 decrease in income based upon the past three years). This represents approximately 3% of the annual economic impact of the \$2,075,088 (average, inflation-adjusted value) aquarium fishery in the State of Hawaii. This impact may be buffered

however, as the cost per fish may increase as the supply of Achilles Tang decreases, negating any socioeconomic impact to the fishers. If this were to be case, the socioeconomic impact of the bag limit would be seen on the consumer side (i.e., those purchasing aquarium fish, who would have to pay a higher premium due to decreased supply).

The Achilles Tang Conservation (Preferred) Alternative would have a ***less than significant impact*** on Hawai'i's overall and ocean socioeconomic resources.

5.2.2 Indirect Impacts

Indirect socioeconomic impacts of the commercial aquarium fishery would primarily involve other tourist businesses such as snorkel and dive operations that rely on seeing and interacting with a healthy reef ecosystem. The presence of a healthy reef ecosystem may also impact overall land/home values on the island of Hawai'i.

5.2.2.1 No Action Alternative

Under the No Action Alternative, no interaction between other tourist operations and commercial aquarium fishers would occur in the WHRFMA. In addition, re-investment of a portion of the profits from the aquarium fishery in the WHRFMA into the state of Hawai'i's economy would no longer occur and funding provided through licenses, other fees, and taxes on aquarium fishers that is used to monitor, protect, and preserve reef fishes and their reef habitats would no longer be available.

No scientific data exist to suggest that in the absence of aquarium fishers an increase in other tourist operations would occur. The loss of funding for reef fish conservation likely would impact the ability of the DAR to monitor and protect reef fish. Nevertheless, the No Action Alternative would have a ***less than significant impact*** on Hawai'i's overall and ocean socioeconomic resources.

5.2.2.2 Status Quo Alternative

Indirect socioeconomic impacts between commercial aquarium fishers, dive tour operators and subsistence/cultural fishers are possible if the commercial aquarium fishing leads to a decrease in demand for snorkel and scuba tours or a decrease in availability of species of fish targeted for subsistence/cultural fishing activities. As the number of commercial aquarium collectors in West Hawai'i began to rise in the 1980s conflicts between dive tour operators and commercial aquarium collectors began to increase. A short-lived informal "Gentleperson's Agreement" was reached in 1987 whereby aquarium collectors agreed to refrain from collecting in certain areas. In return, charter operators agreed not to initiate legislation opposing collecting and to cease harassment. In 1991, four of the areas from the Gentleperson's Agreement were established as the Kona Coast Fisheries Management Area (FMA) within which aquarium collecting is prohibited (Walsh 2004; HAR §13-58). This, in part, led to the development of the WHRFWG and the WHRFMA, minimizing indirect impacts to other, tourist related industries (e.g., dive and snorkel operations), and subsistence and/or cultural fishing. In addition, the average collection of 37 of the 40 White List species is below 1% of their overall island of Hawai'i populations and collection of the remaining three species would be less than 5% of their overall

population (Section 5.4.1.2.5). The small percentage of fish collected over multiple areas would be imperceptible to the average observer.

Available data do not suggest that the Status Quo Alternative has impacted the tourism industry or land values in Hawai'i. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017). When adjusted for inflation, total visitor spending was up 3.5% from 2015 (Figure 3). A total of 8,934,277 visitors came by air or by cruise ship to the state, up 2.9% from the previous record of 8,679,564 visitors in 2015. Total visitor days rose 2% compared to 2016. The average spending per day by these visitors (\$197 per person) was also higher than 2015 (\$191 per person; HDBEDT 2017).

Despite the housing crisis and recent recession, the average sale price of homes steadily increased in Hawai'i from 2011 to 2014 after a few years of year-to-year fluctuation. The average sale price of homes in 2014 was \$594,440, which was 26.4 percent higher than the average sale price in 2011. A rapid price increase was observed particularly in 2013 and 2014. The average sale price in 2013 and 2014 was about 10 percent higher than the price in the prior year. In 2015, the total number of home sales increased by 9.3 percent, but the average sale price was 0.3 percent lower than the previous year (HDBEDT 2016).

The average value of the commercial aquarium fishery within the WHRFMA for the period 2000 to 2017 was \$1,354,045 (inflation-adjusted 2017 dollars). Under the Status Quo Alternative, a portion of the income from this fishery would continue to be put back into Hawai'i's economy through re-investment efforts in terms of equipment, maintenance, supplies, and personnel. Funds from the licenses, other fees, and taxes associated with the fishery would continue to go to environmental conservation projects and research implemented by the DLNR and other agencies/organizations to monitor, manage, and regulate the fishery to ensure environmental impacts are avoided or minimized.

In addition, while the aquarium fishery directly employs permitted collectors, these collectors hire staff/assistants, sell their catch to wholesalers, who in turn get the fish to the market, which includes pet stores and their customers (Dierking 2002).

The Status Quo Alternative would have a **less than significant impact** on Hawai'i's tourist industry, and a minimal, but **beneficial indirect impact** on Hawai'i's overall economy through re-investment efforts in terms of equipment, maintenance, supplies, and personnel, and funding reef fish conservation.

5.2.2.3 Achilles Tang Conservation (Preferred) Alternative

The indirect impacts of the Achilles Tang Conservation (Preferred) Alternative would be similar to those of the Status Quo Alternative (Section 5.2.2.2). The reduction in the Achilles Tang bag limit may make the species more visible to divers and snorkelers, but the impact would be **less than significant**. A minimal, but **beneficial indirect impact** on Hawai'i's overall economy would occur under the Achilles Tang Conservation (Preferred) Alternative through re-investment efforts in terms of equipment, maintenance, supplies, and personnel, and funding reef fish conservation.

5.2.3 Cumulative Impacts

For the period 2000 to 2017, the commercial aquarium fishery within the WHRFMA added an average of \$1,354,045 (inflation-adjusted 2017 dollars) annually to the state of Hawai'i's economy, while the overall aquarium fishery within the state of Hawai'i added an average of \$2,075,088 (inflation-adjusted 2017 dollars) (Table 7). Thus, the WHRFMA aquarium fishery accounts for approximately 65% of the overall aquarium fishery within Hawai'i. In 2016, the overall Gross Domestic Product (GDP) of Hawai'i was \$84.7 billion, of which, the commercial aquarium fishery contributed \$2,257,021 (0.003%), of which \$1,582,011 was from the WHRFMA. Over the 12-month analysis period under the Preferred Alternative, it is estimated that the aquarium fishery on Hawai'i would add an estimated \$2,000,000 to the state's economy, of which an estimated \$1,300,000 would be added from the WHRFMA aquarium fishery.

The No Action, Status Quo and Achilles Tang Conservation (Preferred) alternatives would have a minimal, but beneficial cumulative impact on Hawai'i's overall and ocean socioeconomic resources. The reduction in Achilles Tang bag limit under the Achilles Tang Conservation (Preferred) Alternative may have an effect on the non-aquarium commercial fishery; however, given that known catch of Achilles Tang make up less than 1.5% of the white list species collected by commercial fishers on the island of Hawai'i, and average only 222 per year on the Island (or 592 state-wide) (see Section 5.4.3.2, Table 16), the impact is anticipated to be *less than significant*.

5.3 CULTURAL RESOURCES

As discussed in Section 4.2, there are distinct differences between the traditional, Native Hawaiian approach to fish harvest and management and the western model approach. The core difference lies in the origins of the approaches: traditions, religion, and customs for Native Hawaiians, and science-based, data-driven results in the western model. Many steps have been taken over the years to bridge the gap between the two management approaches. Act 306 and the creation of the WHFC was the first big step in collaboration and coordination between the two approaches. Consisting of 24 voting members and 6 ex-officio agency representatives from DLNR, Sea Grant, and the Governor's Office, the WHFC's members represented diverse geographic areas and various stakeholder, community, and user groups in West Hawai'i. Four aquarium representatives (three collectors and one aquarium shop owner) were members of the WHFC, 40% of the WHFC were maka'āinana (i.e., native fishers), including one on the Board of the Office of Hawaiian Affairs, and most of the members were previously on the WHRFWG. Native Hawaiians that participate in the fishery, and those that support and oppose the commercial aquarium fishery, have always been a part of its long history and hence, its management.

5.3.1 Direct Impacts

5.3.1.1 No Action Alternative

Under the No Action Alternative, commercial collection of aquarium fish would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods other than fine-mesh nets would continue. Commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, but this is not possible to quantify at this time.

Under the No Action Alternative, all commercial aquarium fish collection would stop in the WHRFMA, and it is anticipated that a minor but **beneficial impact** to cultural subsistence fishing would occur in the WHRFMA. While aquarium fish collection may continue in East Hawai'i, it is anticipated that the impacts would be **less than significant** to cultural subsistence fishing.

5.3.1.2 Status Quo Alternative

Under the Status Quo Alternative direct impacts to cultural resources could occur if commercial aquarium fish collection and fish collection for subsistence or traditional purposes are occurring simultaneously in the same areas. Kole and Achilles Tang are likely the primary crossover species between the commercial aquarium fishery and subsistence fishers (Alika Garcia, personal communication); however, the fisheries use the resource differently which has the potential to reduce conflicts. Tradition for Native Hawaiian fishers is to take the larger fish of a species, which was culturally accepted as the more sustainable practice (Alika Garcia, personal communication). Commercial aquarium fishers target smaller, juvenile fish, thereby leaving the larger fish that are targeted by subsistence fishers. In comments received from the Office of Hawaiian Affairs (OHA), OHA expressed a concern that traditional practices included gathering and consuming recently recruited juveniles. However, the source cited by OHA states that traditional practices included collecting smaller species of fish, but did not specifically state that subsistence fishers target juvenile fish of certain species (Maly and Maly 2003). Knowledgeable parties were consulted regarding the traditional subsistence fishing practices and these parties also confirmed that juvenile fish are not targeted by traditional subsistence fishers.

In addition, as discussed in Section 5.4, the commercial aquarium fishery is not having a significant impact on overall fish populations (37 of the 40 White List species would be collected at less than 1 percent of their respective overall island of Hawai'i populations and collection of the remaining three species would be less than 5 percent of their overall population; see Section 5.4.1.3 and Table 15). Commercial aquarium fishers are limited by size and bag limits on various species and must report their catch to DLNR; however, subsistence and/or cultural fishers are not limited in the number of fish they can collect and do not have to report to DLNR. Therefore, the impact of commercial aquarium collection on traditional subsistence fishing is not quantifiable at this time, but it is not likely to be significant given the limits placed on commercial aquarium collectors and the data available regarding commercial collection rates of the White List species.

It was noted in the comments to the DEA, that the practice of commercial aquarium collection runs counter to the core values of Native Hawaiian culture and, as a result, has a direct, adverse impact on cultural resources. It is acknowledged that continued commercial aquarium collection affects cultural resources. However, in light of the fact that commercial collection has been occurring in Hawai'i since the 1940s, and analysis of 18 years of catch data and recent population estimates and trends that demonstrate the fish collected by the commercial aquarium fishery are being sustainably collected (Section 5.4), implementation of the Status Quo Alternative is anticipated to have a **less than significant direct impact** on subsistence fishing and cultural resources.

5.3.1.3 Achilles Tang Conservation (Preferred) Alternative

As noted above, it is anticipated that implementation of the Status Quo Alternative would impact cultural resources, but that the impact would be less than significant. Impacts of the Preferred Alternative will be similar those of the Status Quo Alternative for all species. However, the measures in the Preferred Alternative are intended to reduce potential conflicts with cultural practices and traditional subsistence fishing by reducing the daily bag limit for commercial aquarium collection of Achilles Tang. The implementation of this measure could likely produce a **beneficial impact** on cultural resources, as it could reduce the potential conflict between commercial aquarium collection and traditional subsistence fishers and cultural practitioners. Overall, based on the available data, the Preferred Alternative is anticipated to have a **less than significant direct impact** on subsistence fishing and cultural resources.

5.3.2 Indirect Impacts

5.3.2.1 No Action Alternative

The commercial aquarium fishery has been the primary impetus of most research, management, and monitoring of the aquarium fish resources by DLNR to date. Loss of the commercial aquarium fishery in the WHRFMA would likely lead to declines in such conservation initiatives due to lack of funding (e.g., provided by the fishery and other matching opportunities), resources (e.g., aquarium fishers knowledge and assistance), and reprioritization of agency goals. The loss of these conservation initiatives could have detrimental effects on various fish populations, which may impact Native Hawaiian subsistence fishers. Nevertheless, the No Action Alternative is anticipated to have **less than significant indirect impacts** on cultural resources.

5.3.2.2 Status Quo Alternative

As noted in Section 4.2.1, the commercial aquarium fishery is not a part of traditional Hawaiian culture. However, over the past 70 years of commercial aquarium fishing within Hawaiian waters, issues surrounding the fishery have served as an impetus to help bridge the gap between traditional Native Hawaiian resource management and the “Western” model of management. Native Hawaiians are a part of the commercial aquarium fishery and served on the WHFC assisting in the development of the WHRFMA, FRAs, and regulations guiding the management of the fishery in West Hawai‘i. As a result, Native Hawaiian interest and participation has increased resulting in a more focused, successful, and stable fishery able to monitor issues as they arise. Continued involvement of Native Hawaiians (and all stakeholders) in the management of the resource will only serve to benefit Native Hawaiians and Hawai‘i’s overall cultural resources.

The Status Quo Alternative, through involvement of fishery management by all stakeholders and continued funding and agency prioritization for research, management, and monitoring, is anticipated to have **beneficial indirect impacts** on cultural resources.

5.3.2.3 Achilles Tang Conservation (Preferred) Alternative

Indirect impacts to cultural resources under the Achilles Tang Conservation Alternative will be similar to those of the Status Quo Alternative (Section 5.3.2.2). Implementing the Achilles Tang Conservation (Preferred) Alternative (i.e., reducing the take to no more than five (5) individual Achilles Tang per day for all fisheries in the WHRFMA) may have additional **beneficial indirect impacts** in the future which are not quantifiable at this time.

5.3.3 Cumulative Impacts

It is acknowledged that cultural resources, including traditional practices specific to both species and places have been impacted by past actions. The cumulative impacts of the three alternatives proposed in this FEA are addressed in this section.

It is not possible to fully quantify the cumulative effects of past and ongoing actions on cultural practices and beliefs. The commercial aquarium fishery has existed in Hawai'i since the late 1940s and in the past the fishery has impacted cultural resources by virtue of the fact that commercial aquarium collection occurs in a culturally significant area (the ocean) and, in some instances involves culturally significant species. Impacts on cultural resources resulting from implementation of each of the three alternatives under consideration are expected to be **less than significant**. It is reasonably foreseeable that commercial aquarium collection will continue in the future, and therefore implementation of any of the three alternatives under consideration will continue to have some impact on cultural resources. However, based on the scientific data demonstrating that commercial aquarium collection is not significantly impacting targeted fish populations overall (Section 5.4), and because cultural practitioners are targeting species at different life stages than those targeted by commercial collectors, the cumulative impacts of future commercial aquarium collection on cultural resources are not expected to be significant.

Additionally, the measures in the Preferred Alternative are designed to mitigate potential impacts to cultural resources by limiting the number of Achilles Tang that can be collected by commercial aquarium collectors each day, therefore increasing the number of Achilles Tang available for cultural practices and traditional subsistence fishers. As a result, implementation of the Preferred Alternative would likely have a **beneficial impact** on cultural resources by potentially decreasing user conflict between commercial collectors and subsistence fishers or cultural practitioners. Therefore, implementation of either the No Action Alternative, Status Quo Alternative, or the Preferred Alternative, when combined with past, present, and reasonably foreseeable future actions, is expected to have **less than significant impacts** on cultural resources.

5.4 BIOLOGICAL RESOURCES

5.4.1 Direct Impacts

5.4.1.1 No Action Alternative

Under the No Action Alternative issuance of Aquarium Permits would not occur and commercial aquarium fishing would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods

other than fine-mesh nets would continue. Commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, but this is not possible to quantify at this time.

An estimated 332,000 (18-year average) individual fish would not be collected from the WHRFMA (Table 8). The 18-year average of 13,700 fish and 10,300 invertebrates may still be collected in East Hawai'i as other methods of collection, not requiring an Aquarium Permit, may continue. It is reasonably foreseeable that some commercial aquarium collectors who previously collected in the WHRFMA may shift their collection to East Hawai'i, and that fish collection in East Hawai'i may subsequently increase from the 18-year average of 13,700 fish due to the closure of the WHRFMA. However, this impact cannot be quantified at this time. In addition, without the use of fine mesh nets, the size class of fish collected may increase over that which is caught with fine mesh nets (i.e., the smaller fish would escape the larger mesh), but again this impact cannot be quantified at this time.

A minor, although unquantifiable, population increase may occur in some species over the 12-month analysis period; however, it should be noted that individual fish targeted by commercial aquarium fishers, either by regulation and/or market demand, are generally small, juvenile fish and not the larger breeding stock. As such, non-removal of juvenile fish is not anticipated to result in a statistically significant population increase during the 12-month analysis period.

The No Action Alternative would have a *less than significant direct impact* on Hawai'i's Biological Resources.

5.4.1.2 Status Quo Alternative

Under the Status Quo Alternative issuance of Aquarium Permits would occur and commercial aquarium fishing would take place. It is likely that fishing pressure on the species collected in the past would remain relatively the same over the 12-month analysis period, resulting in an estimated 332,000 (18-year average) individual fish collected from the WHRFMA and an estimated 13,700 fish and 10,300 invertebrates collected from East Hawai'i (Table 8). Total fish and invertebrates collected from the island of Hawai'i has ranged from 192,102 individuals in 2002 to 500,493 in 2006.

Table 8. Total fish and invertebrates collected under Aquarium Permits from East Hawai'i and the WHRFMA annually from 2000-2017 (DAR 2018a).

Fiscal Year	East Hawai'i	WHRFMA	Combined
2000	6,685	241,070	247,755
2001	<i>n.d.</i>	243,085	243,085
2002	<i>n.d.</i>	192,102	192,102
2003	<i>n.d.</i>	233,930	233,930
2004	<i>n.d.</i>	336,436	336,436
2005	7,942	433,270	441,212
2006	22,371	478,122	500,493
2007	11,036	337,287	348,323
2008	36,924	342,954	379,878

Environmental Consequences

Fiscal Year	East Hawai'i	WHRFMA	Combined
2009	21,494	284,537	306,031
2010	9,232	377,805	387,037
2011	39,058	361,452	400,510
2012	104,670	349,971	454,641
2013	55,945	362,444	418,389
2014	52,799	338,848	391,647
2015	25,272	358,671	383,943
2016	15,504	377,479	392,983
2017	22,002	324,565	346,567
Total	430,934	5,974,028	6,404,962
Average	30,781	331,890	355,831

5.4.1.2.1. White List Species
WHRFMA (Only White List Species Collected)

Since 2000, Yellow Tang, Achilles Tang, and Kole have made up 93.3% of all individuals collected by commercial aquarium fishers in the WHRFMA (DAR 2018b). The other 37 White List species make up the remaining 6.7% of the collected fish. WHAP data indicate that establishment of the FRAs has had a significantly positive impact on Yellow Tang and Kole populations in the WHRFMA (DAR 2018a; Table 8). Although Achilles Tang population density has decreased in Open Areas since FRA establishment (1999), population density has increased slightly in MPAs (Table 9) (DAR 2018b).

Table 9. Change in density of Yellow Tang, Kole, and Achilles Tang in the WHRFMA based on WHAP data. ‘Before’ = Mean of 1999-2000; ‘After’ = Mean 2016-2017. Young-of-year (YOY) not included. Bold = statistically significant t-test (DAR 2018b).

COMMON NAME	SCIENTIFIC NAME	AREA	MEAN DENSITY (No./100M ²)		OVERALL% CHANGE IN DENSITY	ρ
			Before	After		
Yellow Tang	<i>Zebrasoma flavescens</i>	FRA	12.73	35.18	+176.3%	<0.001
		Open	10.24	16.18	+58.0%	<0.001
		MPA	23.08	39.86	+72.7%	<0.001
Kole (Goldring Surgeonfish, Yelloweye, Goldring)	<i>Ctenochaetus strigosus</i>	FRA	28.38	50.82	+79.1%	<0.001
		Open	21.18	39.22	+85.2%	<0.001
		MPA	28.53	59.15	+107.3%	<0.001
Achilles Tang	<i>Acanthurus achilles</i>	FRA	0.26	0.19	-28.3%	0.10
		Open	0.31	0.13	-58.1%	<0.001
		MPA	0.42	0.63	+49.1%	0.03

Yellow Tang

The Yellow Tang has been the most collected species every year since 1976 (DAR 2018a). Since 2000, 5,972,413 individuals of all White List species have been collected in the WHRFMA; 4,885,736 (81.8%) of those were Yellow Tang. The average number of Yellow Tang captured each year since 2000 was 271,430 individuals, ranging between a minimum catch of 152,047 individuals (2002) and maximum of 386,767 (2006). Under the Status Quo Alternative, it is anticipated that between 152,000 and 387,000 Yellow Tang would be collected over the 12-month analysis period.

Based on data collected between 2010 and 2016 by the CREP (2018), the island of Hawai'i Yellow Tang population is estimated at 8,260,000 individuals (Table 10). The WHAP estimates the 2016/2017 Open Area Yellow Tang population in WHRFMA at 2,224,149 at the 30'-60' depth, an increase of 560,374 since 2012/2013. Collection of Yellow Tang between 152,000 and 387,000 individuals would remove approximately 2%-5% of the current estimated population for the island of Hawai'i (Table 10).

Table 10. CREP (2018) estimated population of Yellow Tang for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in the WHRFMA (DAR 2018b).

Island of Hawai'i Pop (CREP 2018)	WHAP Open Area Pop. Est. 30'-60' Depth in WHRFMA Only ¹		WHRFMA (DAR2018b)			
	2012/2013	2016/2017	Minimum Collection per Year ²	Maximum Collection per Year ²	Minimum % of Hawai'i Population	Maximum % of Hawai'i Population
8,262,144	1,663,775	2,224,149	152,047	386,767	1.84%	4.68%

¹Include both adults and young-of-the-year

²From 2000 – 2017

The DAR, in its most recent report to the legislature on the aquarium fishery (DAR 2014a), stated:

- Since the FRAs were established the value of Yellow Tang had increased 79% while Kole had increased 10%. The population of Yellow Tang had increased 64.5% in the FRAs while its abundance in the Open Areas (areas fished by commercial aquarium fishers) had not declined significantly. Overall Yellow Tang abundance in the 30-60 foot depth range over the entire West Hawai'i coast had increased 58% (over 1.3 million fish) from 1999/2000 to 2012-2013 to a population of approximately 3,590,239 fish. Two of three sites at long-term studies in South Kohala and South Kona found Yellow Tang populations had increased to levels found over three decades ago before the expansion of aquarium collecting.
- There were no significant differences in the abundance of adult Yellow Tang in open vs. closed areas in shallow water (10-20 foot depths). Total estimated coastwise population of adult Yellow Tang in this depth range was estimated to be >2.5 million individuals. West Hawai'i had a significantly greater percent change in Yellow Tang density within its networked MPAs (and Open Areas) as compared to the non-networked sites on Maui. Five of the 10 most collected aquarium fish in West Hawai'i were significantly more abundant in West Hawai'i's Open Areas as compared to Maui MPA closed areas.

The DAR is currently preparing updated population estimates for White List species in the WHRFMA based on data collected through 2016. The full analysis is not yet complete and is not available at this time; however, the DAR has completed the analysis for Yellow Tang and provided a summary for inclusion in this FEA (DAR 2018b). Data suggest that the upward trend in Yellow Tang populations in the Open Areas seen since 2001 is continuing (Figure 5), even with an average increase of 10,100 individuals collected each year from 2014-2016.

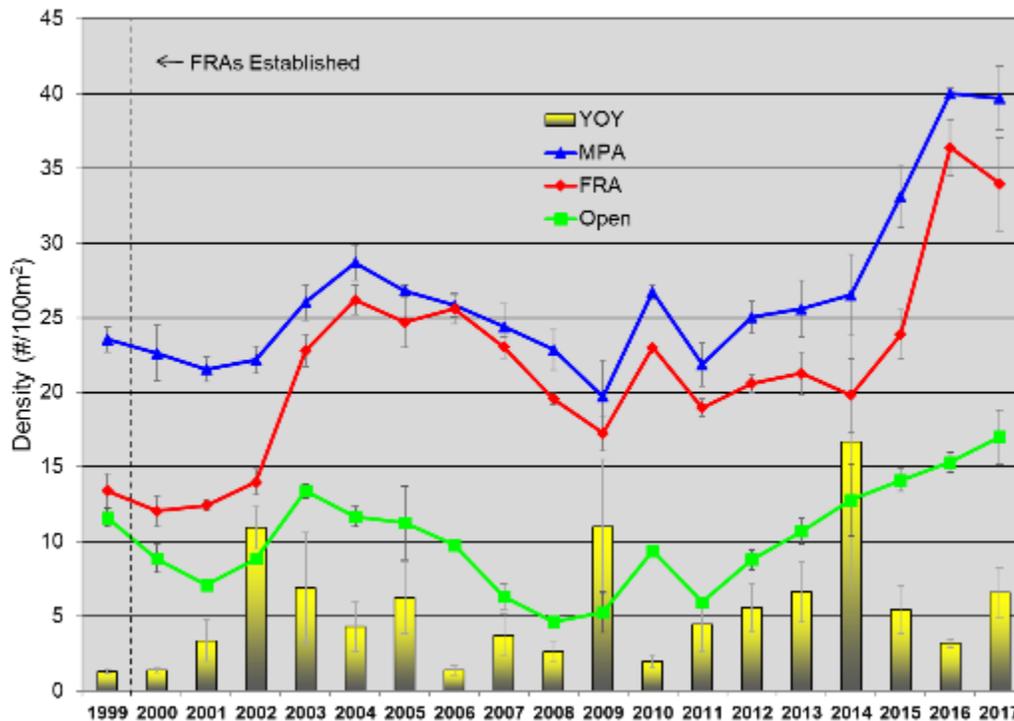


Figure 5. Overall changes in Yellow Tang density (Mean \pm SE) in FRAs, MPAs, and Open Areas, 1999-2017. Yellow vertical bars indicate mean density (MAY-NOV) of Yellow Tang YOY. YOY are not included in trend line data (DAR 2018b).

It is important to note that the Yellow Tang breeding population (larger, adult fish), reflected in the trend lines in Figure 5, is not collected by commercial aquarium fishers, nor is this age/size class desired as a food fish. The brood stock is therefore protected and not significantly reduced as a result of aquarium fish collection. The vertical bars (YOY = young of the year) essentially represent the replacement/recruitment rate of the species (i.e., when juvenile fish survive to be added to a population). It is these juveniles up to several years of age that are targeted by the aquarium fishery, as there is no market for the larger fish.

Kole

The Kole has been the second most collected species every year since 1976 (DAR 2018a). Since 2000, 5,972,413 individuals of all White List species have been collected in the WHRFMA; 552,603 (9.3%) of those were Kole. The average number of Kole captured each year since 2000 was 30,700 individuals, ranging between a minimum catch of 15,961 (2001) and maximum of 42,112 (2006). Under the Status Quo Alternative, it is anticipated that between 16,000 and 42,100 Kole would be collected over the 12-month analysis period.

Based on data collected between 2010 and 2016 by the CREP (2018), the island of Hawai'i Kole population is estimated at 11,700,000 individuals (Table 11). The WHAP estimates the 2016/2017 Open Area Kole population in WHRFMA at 4,662,582 at the 30-60 foot depth, an increase of 1,046,053 since

2012/2013. Collection of Kole between 16,000 and 42,100 individuals would remove less than 1% of the current estimated population for the island of Hawai'i (Table 11).

Table 11. CREP (2018) estimated population of Kole for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in the WHRFMA (DAR 2018b).

Island of Hawai'i Pop (CREP 2018)	WHAP Open Area Pop. Est. 30'-60' Depth in WHRFMA Only ¹		WHRFMA (DAR2018b)			
			Minimum Collection per Year ²	Maximum Collection per Year ²	Minimum % of Hawai'i Population	Maximum % of Hawai'i Population
	2012/2013	2016/2017				
11,697,561	3,616,529	4,662,582	15,961	42,112	0.14%	0.36%

¹Includes both adults and young-of-the-year

²From 2000-2017

The DAR, in its most recent report to the legislature on the aquarium fishery (DAR 2014a), stated:

- The FRAs have also been very successful in increasing Kole populations. The number of Kole increased significantly in all management areas, including Open Areas, from 1999/2000 to 2012/2013. Overall Kole abundance in 30-60 foot depth range over the entire West Hawai'i coast increased 49% (over 2.1 million fish) during this time period with a population of about 6,528,024 fish in 2014.
- Long-term West Hawai'i studies have found Kole populations had decreased from 31% in South Kona to 71% in South Kohala. Given the length of protection at these sites and the overall decline in habitat quality and fish populations in South Kohala, it seems unlikely that the declines are due primarily to aquarium collecting. Comparative surveys utilizing DAR and NOAA data indicate Kole are substantially more abundant in West Hawai'i over most size ranges than in any of the other islands in the Main Hawaiian Islands or the Northwest Hawaiian Islands.

The DAR is currently preparing updated population estimates for White List species in the WHRFMA based on data collected through 2016. The full analysis is not yet complete and is not available at this time; however, the DAR has completed the analysis for Kole and provided a summary for inclusion in this FEA (DAR 2018b). Data suggest that Kole populations within the Open Areas were on an upward trend between 2012 and 2016 and show a slight leveling off in 2017 (Figure 6). The catch increased on average by 3,750 individuals per year between 2014-2016.

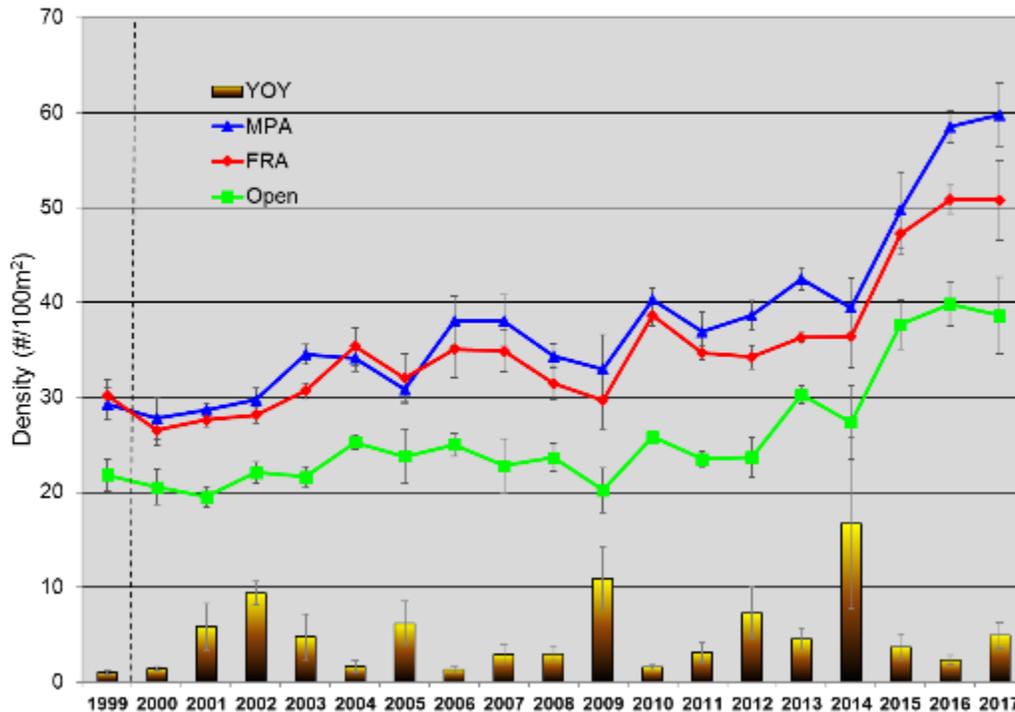


Figure 6. Overall changes in KOLE density (Mean \pm SE) in FRAs, MPAs, and Open Areas, 1999-2017. Vertical bars indicate mean density (JUN-NOV) of KOLE YOY. YOY are not included in trend line data (DAR 2018b).

Trend lines in Figure 6 reflect KOLE brood. The vertical bars (YOY) essentially represent the replacement/recruitment rate of the species (i.e., when juvenile fish survive to be added to a population).

Achilles Tang

The Achilles Tang has generally been the third most collected species every year since 1976, with a few exceptions (4th most captured fish from 2008-2009 and again 2015-2017; DAR 2018a). Since 2000, 5,972,413 individuals of all White List species have been collected in the WHRFMA; 132,775 (2.2%) of those were Achilles Tang. The average number of Achilles Tang captured each year since 2000 was 7,376 individuals, ranging between a minimum catch of 2,976 (2009) and maximum of 13,615 (2005). Under the Status Quo Alternative, it is anticipated that between 3,000 and 13,600 Achilles Tang would be collected over the 12-month analysis period. However, catch of Achilles Tang has dropped since 2007. In the 7 years from 2000-2006, a total of 66,732 Achilles Tang were collected (annual average of 9,534). In contrast, in the 11 years from 2007-2017, an almost equal amount totaling 66,043 Achilles Tang were collected (annual average of 6,004). Therefore, it is likely that the collection of Achilles Tang over the 12-month analysis period would be closer to the 2007-2017 annual average (6,004); however, for the purposes of analyzing the worst-case scenario, the maximum annual collection (13,600) was used for estimating impacts.

Based on data collected between 2010-2016 during CREP (2018) surveys, the Achilles Tang population on the island of Hawai'i is estimated at 231,000 individuals (Table 12). The WHAP estimates the 2016/2017 Open Area Achilles Tang population in WHRFMA at 13,960 at the 30-60 foot depth, a decrease of 7,667 since 2012/2013 (Table 12). Collection of Achilles Tang between 3,000 and 13,600 individuals would remove between 2-6% of its current estimated population for the island of Hawai'i (Table 12).

Table 12. CREP (2018) estimated population of Achilles Tang for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in the WHRFMA (DAR 2018b).

Island of Hawai'i Pop (CREP 2018)	WHAP Open Area Pop. Est. 30'-60' Depth in WHRFMA Only ¹		WHRFMA (DAR2018b)			
	2012/2013	2016/2017	Minimum Collection per Year ²	Maximum Collection per Year ²	Minimum % of Hawai'i Population	Maximum % of Hawai'i Population
231,377	21,627	13,960	2,976	13,615	1.28%	5.88%

¹Includes both adults and young-of-the-year. See discussion below.

²From 2000-2017

The DAR, in its most recent report to the legislature on the aquarium fishery (DAR 2014a), stated:

- Commercial aquarium landings of Achilles Tang have declined in West Hawai'i over the past two decades in association with a recent dramatic increase in its value (2014). This is strongly suggestive of declining availability (i.e. abundance). Achilles Tang had declined in FRAs and Open Areas over the last 15 years tempered somewhat by a slight increase in 2013 and 2014. However, Achilles Tang numbers have increased in MPAs over the last four years (2014). Open Area (aquarium collection allowed) populations are higher than FRA (albeit both being low). Achilles Tang has had low levels of recruitment over the past decade and substantial numbers of larger fish (i.e., 'breeders') are taken for human consumption.
- An important caveat is that the reef areas where the WHAP transects are located are not the prime habitat for adults of this species. As such the bulk of the population is not adequately surveyed by WHAP monitoring.
- Results from the WHAP monitoring program and long-term studies suggest there should be concern for the sustained abundance of this species. Achilles Tang are a very popular food fish as well as an aquarium fish and thus are being harvested both as juveniles and adults. Low levels of recruitment over the past 14 years appear insufficient to compensate for the existing levels of harvest. In order to address concerns regarding aquarium impacts on this species, the new West Hawai'i Regional Fishery Management Area Rule (HAR § 13-60.4) includes an Achilles Tang bag limit of 10 fish/person/day which applies only to aquarium collectors (2014). (Addressed below in this section).

Although the most recent DAR report to the legislature suggests there should be concern for the sustained abundance of Achilles Tang in the WHRFMA, the report concedes that WHAP transects are not located in prime habitat for adult Achilles Tang (i.e., high energy shallower surge zones), and therefore

the bulk of the Achilles Tang population is not adequately surveyed by WHAP monitoring (DAR 2014a). In addition, WHAP transects are not located in all collection zones found within the WHRFMA (Figure 4), including the two zones (100A and 108) with the highest percentage of the Achilles Tang collection, suggesting that the population of Achilles Tang in the WHRFMA is likely higher than estimated by the WHAP. This is supported by CREP (2018) data which show approximately 43% (approximately 79,000 individuals) of the island of Hawai'i Achilles Tang population (approximately 184,000 individuals) resides in collection zones 100 and 108.

The island of Hawai'i is divided into 14 collection zones for reporting purposes (Zones 100-108; Figure 4). The WHAP has survey transects only on the west side of the island as far south as collection zone 100B, but no transects within collection zones 100A and 108 located on the southwest and southeast portions of the island, respectively (Figure 4). Since 2000, 56% of all Achilles Tang collected were reported from collection zones 100 and 108, and since 2012 when collection zone 100 was subdivided into 100A and 100B, 51% of all Achilles Tang reported have been from collection zones 100A and 108 (DAR 2018a). Since 2000, less than two fishers have reported catch of Achilles Tang in collection zones 104, 105, and 106 (all n.d. data), and only in one year did more than two commercial aquarium fishers report Achilles Tang collection from zone 107 (DAR 2018a).

Because WHAP transects are not located in prime habitat, and no transects are located in areas where the majority of Achilles Tang collection occurs and over 40% of the population occurs, Achilles Tang population estimates based on WHAP data are likely underestimated, which thus results in the impact of the collection being overestimated when based solely on WHAP data. These issues related to the WHAP data support the use of the CREP population estimate for evaluating the impact of the collection (Table 12), as CREP surveys have good spatial coverage in all West Hawai'i collection zones and in the shallower water zones occupied by Achilles Tang.

The most recent DAR report to the legislature also states that commercial aquarium landings of Achilles Tang have declined in West Hawai'i over the past two decades in association with a dramatic increase in its value (DAR 2014a). The results presented by Stevenson et al. (2013) suggest the MPA network significantly displaced fishing effort from the central to the northern and southern coastal regions of the island of Hawai'i farther from ports of entry, and that estimated catch revenues and experimental catch per unit effort were statistically greater as distance from port of entry increased. These findings suggest that commercial aquarium fishers are traveling farther to reach suitable habitat areas open to Achilles Tang collection (e.g., Collection Zones 100A and 108), resulting in increased collection costs due to increased fuel consumption, equipment wear and tear, business expenses, time, etc., which is then passed on to wholesalers (i.e., increased cost per fish). At the same time, the bag limit on Achilles Tang implemented in 2014 has resulted in reduced Achilles Tang catch (average of 5,600 per year since 2014, down from 7,740 in 2014), affecting the number of fish brought to market (i.e., supply), which may also raise the price per fish. Therefore, the conservation measures that have been implemented to manage aquarium fish harvest (i.e., establishment of MPA network, bag limits) are more likely the cause of lower catch and increased value of Achilles Tang than declining availability.

The DAR is currently preparing updated population estimates for White List species in the WHRFMA based on data collected through 2016. The full analysis is not yet complete and is not available at this

time; however, the DAR has completed the analysis for Achilles Tang and provided a summary for inclusion in this FEA (DAR 2018b). Data suggest that Achilles Tang density (excluding YOY) within the Open Areas were on a downward trend between 2013 and 2016 and show a slight leveling off in 2017 (Figure 7). The catch of Achilles Tang decreased from 7,740 in 2014 to an average of 5,600 per year from 2015-2017. It is important to note that the Achilles Tang bag limit of 10 fish per day began in 2014, which likely accounts for the reduced catch after 2014.

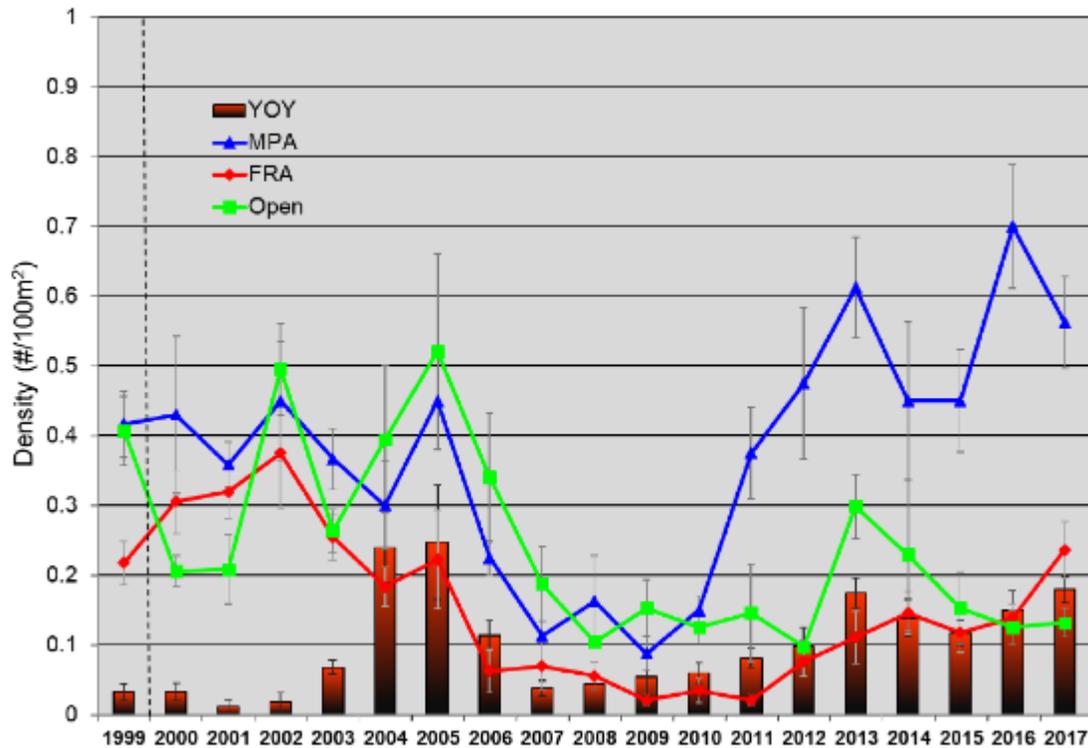


Figure 7. Overall changes in Achilles Tang density in FRAs, MPAs, and Open Areas, 1990-2017. Vertical bars indicate mean density (JUN-NOV) of Achilles Tang YOY. YOY are not included in trend line data (DAR 2018b).

As discussed above, due to WHAP survey locations, Figure 7 is likely an underestimate of the overall WHRFMA Achilles Tang population, as it represents only those Achilles Tang observed at a depth of 30-60 feet (not prime adult habitat) and does not include areas where most Achilles Tang are collected (Collection Zones 100A and 108; prime habitat for all sizes).

Other White List Species

When Yellow Tang, Kole, and Achilles Tang are excluded, the remaining 37 White List species make up 6.7% of the collected fish in the WHRFMA. The Orangespine Unicornfish (= Clown Tang) and Black Surgeonfish (= Chevron Tang) each made up approximately 2% of the overall catch in the WHRFMA since 2000. The remaining 35 species on the White List each made up less than 1% of the overall catch in the WHRFMA since 2000. Table 6 shows the percent of the Open Area population caught by commercial aquarium fishers for each species within the 30' – 60' depth range between 1999-2013 (the

most recent estimate available) (DAR 2014a). However, when overall populations (FRAs + MPAs + Open + non-surveyed areas) are considered, individuals collected would make up less than 10% of their overall population and less than 1% for most White List species. It is anticipated that these trends would continue over the 12-month analysis period.

Capture data from 2000-2017 (DAR 2018a), CREP (2018) population estimates, and estimated catch percentages for all White List species in both West and East Hawai'i can be found in Section 5.4.1.3.

East Hawai'i

Commercial aquarium fish collection in East Hawai'i is significantly less than in the WHRFMA, in both level of effort and number of individuals kept. Since 2000, approximately 245,934 fish² (White List and non-White List species combined) have been collected in East Hawai'i, compared to the 5,972,413 fish collected in the WHRFMA. The number of commercial aquarium fishers reporting catch is also significantly lower in East Hawai'i with an average of five permitted fishers reporting each year since 2000, compared to an average of 28 permitted fishers reporting from the WHRFMA over the same time period (this number does not include any permit reports that fall under the *n.d.* category).

Of the approximately 245,934 fish collected in East Hawai'i over the past 18 years, approximately 49% (119,959) were Yellow Tang. Seventy-seven percent of the Yellow Tang were captured from 2000- 2011. From 2011-2014 (the last year for which data are available), the average catch of Yellow Tang was 6,836 per year ranging between a minimum of 2,774 (2013) and a maximum of 14,269 (2014) individuals. Kole and Achilles Tang captures in East Hawai'i since 2000 have averaged 1,047 and 703 individuals per year, respectively.

The island of Hawai'i population estimates for Yellow Tang, Kole, and Achilles Tang based on data collected between 2010 and 2016 during CREP (2018) surveys are shown in Table 13. Based on these estimates, and the minimum and maximum collection of each species over an 18-year period, the proportion of the overall population removed by the East Hawai'i fishery is less than 1% for each species.

Table 13. CREP (2018) estimated populations of Yellow Tang, Kole, and Achilles Tang for the island of Hawai'i and percentage of population taken by commercial aquarium fishers in East Hawai'i (DAR 2018a).

Species	Island of Hawai'i Pop (CREP 2018)	East Hawai'i (DAR2018a)			
		Minimum Collection per Year ¹	Maximum Collection per Year ¹	Minimum % of Hawai'i Population	Maximum % of Hawai'i Population
Yellow Tang	8,262,144	2,774	14,269	0.03%	0.17%
Kole	11,697,561	76	3,601	<0.001%	0.03%
Achilles Tang	231,377	525	1,525	0.23%	0.66%

¹From 2000-2017

² Total number of White List and non-White List fish account for only those species with non n.d. data from 2000 to 2017. n.d. data is not included as it is not provided by the DAR.

Environmental Consequences

Of the remaining fish species collected in East Hawai'i, none averaged more than 53 individuals collected per year since 2000; most averaged less than 25 individuals per year. Under the Status Quo Alternative, it is anticipated that the collection of White List species over the 12-month analysis period would be similar to 18-year annual average.

Capture data from 2000-2017 (DAR 2018a), CREP (2018) population estimates, and estimated catch percentages for all White List species in both East and West Hawai'i can be found in Section 5.4.1.3.

Based on the analysis presented in this section, the Status Quo Alternative would have a ***less than significant direct impact*** on White List species.

5.4.1.2.2. Non-White List Species WHRFMA

Only White List species are allowed to be collected from the WHRFMA and any non-target, non-White List species captured incidentally during fishing activities are to be immediately released at the capture site (Act 306; Section 1.2.3.1). Incidental captures are limited due to the capture methods implemented by fisherman, which focus on target species. Any incidental captures would therefore be negligible, and no significant direct impacts to non-White List species in the WHRFMA are anticipated.

East Hawai'i

East Hawai'i is not restricted to the White List species and many additional forms of aquatic life can be collected. Based on collection data between 2000 and 2017, a single invertebrate species, Red Pond Shrimp (unidentified species), made up the majority of the catch (DAR 2018a). Of the 185,000 non-White List aquatic animals collected in East Hawai'i over the past 18 years, approximately 99% (182,710 individuals) reported (i.e., data available) were Red Pond Shrimp. On average, 10,150 Red Pond Shrimp are taken annually from East Hawai'i (DAR 2018a). All remaining 79 non-White List species collected in East Hawai'i averaged three or less individuals collected per year since 2000 based on the data reviewed. Under the Status Quo Alternative, it is anticipated that collection of non-White List species over the 12-month analysis period would be similar to the catch reported from 2000 to 2017.

Based on the analysis presented in this section, the Status Quo Alternative would have a ***less than significant direct impact*** on Non-White List species.

5.4.1.2.3. Hawai'i Species of Greatest Conservation Need WHRFMA

Although listed as a Hawaiian SGCN, the IUCN (2017) provides this assessment of the Psychedelic Wrasse:

This species has a relatively restricted distribution in the east-central and north-western Pacific Ocean, being found only around the Hawaiian Islands Chain. Although there is no evidence for any population declines, the species is taken in the marine aquarium fish trade. However, more than two thirds of its range are enclosed by the Papahānaumokuākea Marine National Monument. This species is therefore listed as Least Concern.

Environmental Consequences

A total of 4,931 Psychedelic Wrasse were collected in the WHRFMA from 2000 to 2017 (DAR 2018a), representing 0.08% of the total White List species collected over that same period. The average number of Psychedelic Wrasse captured each year since 2000 was 274 individuals, ranging between 97 (2003) and 599 (2017) individuals collected (Table 14). Under the Status Quo Alternative, it is anticipated that between 100 and 600 Psychedelic Wrasse would be collected over the 12-month analysis period.

Although listed as a Hawaiian SGCN, the IUCN (2017) provides this assessment of the Tinker's Butterflyfish:

The species is common and fairly widespread. Although it is occasionally collected for the aquarium trade, its deep-water habitat likely prevents the harvest of many specimens. Therefore, harvesting does not appear to be a major threat and there are no signs of significant decline. It is listed as Least Concern.

A total of 5,561 Tinker's Butterflyfish were collected in the WHRFMA from 2000 to 2017 (DAR 2018a), representing 0.09% of the total White List species collected over the same period. The average number of Tinker's Butterflyfish captured each year since 2000 was 309 individuals, ranging between 166 (2013) and 586 (2015) individuals collected (Table 14). Under the Status Quo Alternative, it is anticipated that between 170 and 590 Tinker's Butterflyfish would be collected over the 12-month analysis period.

Although listed as a Hawaiian SGCN, the IUCN (2017) provides this assessment of the Fisher's Angelfish:

Listed as Least Concern in view of its wide distribution, large overall population, relatively limited collection for the aquarium fish trade, no substantial habitat loss, and no major threats overall.

A total of 1,538 Fisher's Angelfish were collected in the WHRFMA from 2002 to 2017 (DAR 2018a)³, representing 0.03% of the total White List species collected over the same period. The average number of Fisher's Angelfish captured each year since 2000 was 96 individuals, ranging between 22 (2004) and 288 (2017) individuals collected (Table 14). Under the Status Quo Alternative, it is anticipated that between 20 and 290 Fisher's Angelfish would be collected over the 12-month analysis period.

Island of Hawai'i population estimates for Psychedelic Wrasse, Tinker's Butterflyfish, and Fisher's Angelfish based on data collected between 2010 and 2016 by the CREP (CREP 2018) are shown in Table 14. Based on these estimates, and the minimum and maximum catch for each species over an 18-year period, the proportion of the overall population removed by the WHRFMA fishery ranges from less than 1% for Fisher's Angelfish to 3.2% for Tinker's Butterflyfish. In addition, Kane and Tissot (2017) demonstrate that densities of all three species are greater at depths below the 98-foot survey depth of the CREP surveys, suggesting that the actual populations of all three species are higher than those reported by the CREP surveys, and the actual impact of commercial aquarium collection is lower than reported in Table 14.

³ Data not available for 2000 and 2001.

Table 14. CREP (2018) estimated populations of Psychedelic Wrasse, Tinker’s Butterflyfish, and Fisher’s Angelfish for the island of Hawai’i and percentage of populations taken by commercial aquarium fishers in the WHRFMA (DAR 2018a).

Species	Island of Hawai’i Pop ¹ (CREP 2018)	WHRFMA (DAR2018a)			
		Minimum Collection per Year ²	Maximum Collection per Year ²	Minimum % of Hawai’i Population	Maximum % of Hawai’i Population
Psychedelic Wrasse	36,770	97	599	0.26%	1.63%
Tinker’s Butterflyfish	18,475	166	586	0.9%	3.17%
Fisher’s Angelfish	666,209	22	288	0.003%	0.04%

¹All species population estimates are likely low due to the depths at which they occur.

²From 2000-2017

Based on deep diver observations, Tinker’s Butterflyfish and Psychedelic Wrasse are substantially more common in the long term protected areas (MPAs) (DAR 2014a).

Based on the analysis presented in this section, the Status Quo Alternative would have **less than significant direct impacts** on SGCN species in the WHRFMA.

East Hawai’i

Due to the low number of individual commercial aquarium permits and low number of areas fished in East Hawai’i, reliable catch and population numbers are not available for the Psychedelic Wrasse in East Hawai’i. However, no Psychedelic Wrasse have been collected from East Hawai’i in 9 of the 18 years between 2000 and 2017 (DAR 2018a). It is likely that Psychedelic Wrasse are primarily taken as a result of opportunistic collection by fishers while targeting other species.

No Tinker’s Butterflyfish or Fisher’s Angelfish have been reported as collected from East Hawai’i during the period 2000-2017.

Under the Status Quo Alternative, it is anticipated that collection of SGCN species over the 12-month analysis period would be similar the catch reported from 2000 to 2017.

Based on the analysis presented in this section, the Status Quo Alternative would have a **less than significant direct impact** on SGCN species in East Hawai’i.

5.4.1.2.4. Reef Habitat

Herbivores, which feed on marine algae, and especially coral scraping herbivores such as parrotfish (Scaridae), are widely considered to play a key role in the overall health and subsequent recovery of coral reefs after disturbances such as bleaching. The four largest groups of herbivorous coral reef fishes are the parrotfishes, damselfishes (Pomacentridae), rabbitfishes (Siganidae), and surgeonfishes

(Acanthuridae). No parrotfishes or rabbitfishes (none in Hawai'i) are included on the White List, and therefore cannot be collected by commercial aquarium fishers in the WHRFMA. Only one damselfish, the Hawaiian *Dascyllus* (Section 4.4.1.26), is included on the White List and can be collected. However, Hawaiian *Dascyllus* are not herbivores and the average number collected per year since 2000 is 1 in East Hawai'i and 119 in the WHRFMA (Table 15).

Herbivores taken by the aquarium fishery typically consist of the smaller size classes, either by regulation (e.g., HAR 13-60.4 prohibits the take of more than 5 Yellow Tang/day larger than 4.5 inches) or by market demand (i.e., minimal market for large adult fish in the aquarium trade). The smaller fish primarily collected by commercial aquarium fishers are the least effective sizes for cropping algae. In addition, bag limits are in place for the three White List species (5 Yellow Tang >4.5" and 5 fish <2"; 5 Kole >4" [AQ fishers only] ; and Achilles Tang [10 fish/day]) that have made up 93.3% of all individuals collected by commercial aquarium fishers in the WHRFMA since 2000 (Section 5.4.1.2.1). Even with making up the highest proportion of the catch, WHAP data indicate populations of Yellow Tang and Kole continue to increase (Section 5.4.1.2.1) and based on CREP population estimates the average annual collection of the three species represents less than 4% of the overall island of Hawai'i population of Yellow Tang and Achilles Tang and less than 1% of the overall island of Hawai'i population of Kole (Table 15). Therefore, it is not anticipated that a significant reduction in herbivores as a result of commercial aquarium collection would occur under the Preferred Alternative.

In a study analyzing the effects of aquarium collectors on coral reef fishes in Kona, Hawai'i, Tissot and Hallacher (2003) concluded that there were no significant differences in damaged coral between control and collected sites (i.e., sites where aquarium collection occurs) to indicate the presence of destructive fishing practices. In addition, they found no increases in the abundance of macroalgae where the abundance of herbivores was reduced by aquarium collecting.

The DAR has been conducting related observations since 2003 (DAR 2018c). Monitoring of coral reef benthic cover is conducted approximately every four years at 25 permanent monitoring sites. Monitoring is conducted more frequently if substantial benthic change occurs between regular sampling years (e.g. after a coral bleaching event). The analysis compares the presence or absence of commercial aquarium collecting in West Hawai'i relative to overall coral cover and changes in coral cover. Major results of the study are summarized below:

- Coral cover was slightly higher within areas closed to the commercial aquarium fishery compared to Open Areas, but the difference was not statistically significant for any year of monitoring (2003: $p = 0.276$; 2007: $p = 0.275$; 2011: $p = 0.496$; 2014: $p = 0.554$; 2016: $p = 0.673$; 2017: $p = 0.782$). Additionally, there was no apparent trend of declining coral cover in the Open Areas over time.
- From 2003 to 2017, overall mean coral cover declined less within Open Areas compared to areas closed to commercial aquarium collection (Closed areas: $-22.5\% \pm 3.4\%$; Open Areas: $-15.5\% \pm 2.3\%$), but this difference in change in coral cover was not significant ($p = 0.093$).
- From 2014 to 2016, West Hawai'i experienced a severe coral bleaching and mortality event, which peaked in the fall of 2015. Over this time-period, overall mean coral cover decline was

Environmental Consequences

slightly less in the areas open to commercial aquarium collection, but again, the difference was not significant (Closed areas: $-19.6 \% \pm 6.0 \%$; Open Areas: $-17.6 \% \pm 1.3 \%$; $p = 0.605$).

- From 2016 to 2017, approximately one year after coral post-bleaching mortality subsided, minimal change in coral cover was documented within areas open to commercial aquarium collection (Open Areas: $0.07 \% \pm 2.1 \%$), compared to a slight decline in mean coral cover in areas closed to collection (Closed: $-1.94 \% \pm 2.3 \%$), and this difference was statistically significant ($p = 0.038$).

Based on the analysis presented in this section, the Status Quo Alternative would have a ***less than significant direct impact*** on reef habitat or the resilience of corals to respond to widespread bleaching events.

5.4.1.2.5. Impact of Collection on White List Species Populations

This Section summarizes the White List species collection data under the Status Quo Alternative, as well as population estimates, into tabular format (Table 15). The primary purpose of the data analysis in regard to White List species was to estimate, as accurately as possible, what the current populations of White List species are, what level of collection is occurring in those populations, and the average and maximum proportion of the population collected annually for the period 2000-2017 for each species. The CREP (2018) data compiled by the NOAA are comprehensive in both scope and spatial coverage and provide as accurate a depiction of population numbers as possible for the island of Hawai'i. The DAR (2018a) catch data provide collection numbers to allow for impact analysis. As noted throughout this FEA, confidentiality regulations (HRS §189-3) and changes in the manner in which data were collected over the years did impact the analysis but was mitigated by the approach used during the analysis (i.e., using aggregate numbers). This method presents the most inclusive evaluation of the impact of the commercial aquarium fish collection on each of the 40 White List species.

Table 15. Summary of CREP (2018) population estimates, reported catch from East and West Hawai'i since 2000 (DAR 2018a), and the impact of average and maximum annual collection by species for the 40 White List species. n.d. = Not Disclosed (Section 5.1); NA = Insufficient data available

Common Name	Island of Hawai'i Pop. Mean (lower-upper estimate limit) (CREP 2018)	East Hawai'i (DAR 2018a)				WHRFMA (DAR 2018a)				Island of Hawai'i (DAR 2018a)			
		Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.
Achilles Tang	231,377 (113,989-348,765)	703	1,525	0.30%	0.66%	7,376	13,615	3.19%	5.88%	8,079	21,577	3.49%	9.33%
Bird Wrasse	877,224 (686,135-1,068,313)	n.d.	n.d.	NA	NA	345	624	0.04%	0.07%	345	969	0.04%	0.11%
Black Durgon	1,354,454 (991,054-1,717,854)	n.d.	n.d.	NA	NA	64	143	<0.01%	0.01%	64	207	<0.01%	0.02%
Black Surgeonfish	549,462 (355,535-743-388)	n.d.	n.d.	NA	NA	3,535	8598	0.64%	1.56%	3,535	12,133	0.64%	2.21%
Blacklip Butterflyfish	131,260 (53,712-208,807)	n.d.	n.d.	NA	NA	72	129	0.05%	0.10%	72	201	0.05%	0.15%
Blackside Hawkfish	246,727 (201,538-291,917)	n.d.	n.d.	NA	NA	42	85	0.02%	0.03%	42	127	0.02%	0.05%
Bluestripe Snapper - Taape	7,092,851 (-265,739-14,451,440)	0	0	0.00%	0.00%	43	98	<0.01%	<0.01%	43	141	<0.01%	<0.01%
Brown Surgeonfish	14,439,543 (12,820,405-16,058,680)	n.d.	n.d.	NA	NA	891	2476	0.01%	0.02%	891	3,367	0.01%	0.02%
Eightline Wrasse	689,221 (535,601-842,842)	n.d.	n.d.	NA	NA	119	390	0.02%	0.06%	119	509	0.02%	0.07%
Eyestripe Surgeonfish	578,835 (438,301-719,369)	n.d.	n.d.	NA	NA	403	1143	0.07%	0.20%	403	1,546	0.07%	0.27%

Environmental Consequences

Common Name	Island of Hawai'i Pop. Mean (lower-upper estimate limit) (CREP 2018)	East Hawai'i (DAR 2018a)				WHRFMA (DAR 2018a)				Island of Hawai'i (DAR 2018a)			
		Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.
Fisher's Angelfish	666,209 (382,769-949,648)	0	0	0.00%	0.00%	96	288	0.01%	0.04%	96	384	0.01%	0.06%
Forcepsfish	435,954 (366,537-505,372)	21	27	<0.01%	0.01%	1,831	3,152	0.42%	0.72%	1,852	4,987	0.43%	1.14%
Fourline Wrasse	1,253,164 (798,831-1,707,496)	n.d.	n.d.	NA	NA	73	171	0.01%	0.01%	73	244	0.01%	0.02%
Fourspot Butterflyfish	797,673 (678,338-917,008)	30	30	<0.01%	<0.01%	889	1,630	0.11%	0.20%	919	2,524	0.12%	0.32%
Gilded Triggerfish	129,089 (80,159-178,020)	n.d.	n.d.	NA	NA	45	157	0.03%	0.12%	45	202	0.03%	0.16%
Goldrim Tang	97,924 (10,276-185,573)	27	55	0.03%	0.06%	554	1,324	0.57%	1.35%	581	1,891	0.59%	1.93%
Kole	11,697,561 (9,547,971-13,847,152)	1,047	3,601	0.01%	0.03%	30,700	42,112	0.26%	0.36%	31,747	73,626	0.27%	0.63%
Hawaiian Dascyllus	225,153 (91,266-359,040)	12	12	<0.01%	<0.01%	119	231	0.05%	0.10%	131	351	0.06%	0.16%
HI Whitespotted Toby	685,517 (566,297-804,737)	n.d.	n.d.	NA	NA	257	896	0.04%	0.13%	257	1,153	0.04%	0.17%
Lei Triggerfish	1,299,027 (1,182,364-1,415,690)	n.d.	n.d.	NA	NA	172	301	0.01%	0.02%	172	473	0.01%	0.04%
Longfin Anthias	NA	n.d.	n.d.	NA	NA	102	102	NA	NA	102	204	NA	NA
Milletseed Butterflyfish	122,588 (69,611-175,565)	n.d.	n.d.	NA	NA	106	421	0.09%	0.34%	106	527	0.09%	0.43%

Environmental Consequences

Common Name	Island of Hawai'i Pop. Mean (lower-upper estimate limit) (CREP 2018)	East Hawai'i (DAR 2018a)				WHRFMA (DAR 2018a)				Island of Hawai'i (DAR 2018a)			
		Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.
Multiband Butterflyfish	1,788,604 (1,601,944-1,975,264)	n.d.	n.d.	NA	NA	1,206	2,951	0.07%	0.16%	1,206	4,157	0.07%	0.23%
Orangeband Surgeonfish	1,319,924 (962,298-1,677,550)	16	16	<0.01%	<0.01%	828	2,306	0.06%	0.17%	844	3,136	0.06%	0.24%
Orangespine Unicornfish	897,085 (758,978-1,035,192)	36	59	<0.01%	<0.01%	5,827	8,813	0.65%	0.98%	5,863	14,654	0.65%	1.63%
Ornate Wrasse	1,630,224 (1,403,166-1,857,282)	15	15	<0.01%	<0.01%	1,657	12445	0.10%	0.76%	1,672	14,104	0.10%	0.87%
Peacock Grouper - Roi	476,556 (399,275-553,837)	n.d.	n.d.	NA	NA	3	3	<0.01%	0.00%	3	6	<0.01%	<0.01%
Pencil Wrasse	169,025 (79,513-258,536)	n.d.	n.d.	NA	NA	165	424	0.10%	0.25%	165	589	0.10%	0.35%
Potter's Angelfish	1,087,709 (826,174-1,349,245)	n.d.	n.d.	NA	NA	1,086	3,370	0.10%	0.31%	1,086	4,456	0.10%	0.41%
Psychedelic Wrasse	36,770 (10,627-62,913)	n.d.	n.d.	NA	NA	274	599	0.75%	1.63%	274	873	0.75%	2.37%
Pyramid Butterflyfish	23,217 (559-45,874)	n.d.	n.d.	NA	NA	133	714	0.57%	3.08%	133	847	0.57%	3.65%
Redbarred Hawkfish	231,580 (165,409-297,751)	n.d.	n.d.	NA	NA	13	21	<0.01%	<0.01%	13	34	<0.01%	<0.01%
Saddle Wrasse	6,396,052 (5,757,305-7,034,799)	9	9	<0.01%	<0.01%	602	982	<0.01%	0.02%	611	1,585	<0.01%	0.02%
Shortnose Wrasse	307,032 (157,058-457,006)	9	9	<0.01%	<0.01%	228	582	0.07%	0.19%	237	811	0.08%	0.26%

Environmental Consequences

Common Name	Island of Hawai'i Pop. Mean (lower-upper estimate limit) (CREP 2018)	East Hawai'i (DAR 2018a)				WHRFMA (DAR 2018a)				Island of Hawai'i (DAR 2018a)			
		Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.	Average Catch per year	Maximum Catch per Year	Average Percent of Hawai'i Pop.	Max Percent of Hawai'i Pop.
Spotted Boxfish	94,937 (55,775-134,099)	n.d.	n.d.	NA	NA	170	454	0.18%	0.48%	170	624	0.18%	0.66%
Thompson's Surgeonfish	405,776 (205,636-605,916)	n.d.	n.d.	NA	NA	182	947	0.04%	0.23%	182	1,129	0.04%	0.28%
Tinker's Butterflyfish	18,475 (-1,556-38,505)	36	38	0.20%	0.21%	309	586	1.67%	3.17%	345	909	1.87%	4.92%
Flame Wrasse	NA	n.d.	n.d.	NA	NA	75	168	NA	NA	75	243	NA	NA
Yellow Tang	8,262,144 (6,849,295-9,674,993)	11,996	33,809	0.15%	0.41%	271,430	386,767	3.29%	4.68%	283,426	668,194	3.43%	8.09%
Yellowtail Coris	391,507 (318,678-464,335)	17	18	<0.01%	<0.01%	575	851	0.15%	0.22%	592	1,428	0.15%	0.36%

While research into the reproductive biology and fecundity (i.e., ability to produce offspring) of specific species of reef fish is limited in availability, some generalities can be derived from available research, and most reef species are long-lived and highly productive. For reef fishes in general, the relationship between size and fecundity is well documented, with larger fish producing exponentially more eggs (Thresher 1984, Berkeley et al. 2004). Moreover, evidence from a diverse set of species indicates that older individuals produce larger, faster growing, and more starvation-resistant larvae (Thresher 1984, Bobko and Berkeley 2004). For these reasons, Birkeland and Dayton (2005) recommend protecting larger or older individuals to increase the sustainability of harvested populations.

Yellow Tang is a species which provides a good example of high fecundity, as well as the relationship between size and fecundity. Bushnell et al. (2010) studied Yellow Tang and found large individual variation in batch fecundity, with a range from 44 to >24,000 eggs per female produced on a single sampling date. Smaller females (3.1-4.75-inch standard length [LS]), produced limited numbers of eggs, while larger females (≥ 4.75 -inch LS) were capable of maximal egg production (>20,000 eggs per batch). Bushnell et al. (2010) estimated the annual fecundity of Yellow Tang to average 1,055,628 eggs per female (with a standard error of 120,596 eggs).

In addition to high levels of fecundity, many reef fish are long-lived. Choat and Axe (1996) studied four *Naso* species in the Great Barrier Reef, and found life spans of 35 to 40 years, with rapid growth during the first 3 to 4 years of life. Eble et al. (2009) found that the Hawaiian kala (*Naso unicornis*) is also long-lived, with rapid initial growth. Sampled kala ranged in age from 1 to 58 years with the majority of growth occurring within the first 15% of the life span. These two studies indicate that *Naso* species in general exhibit life-spans in excess of 40 years (Eble et al. 2009). While studying habitat- and sex-specific life history patterns of Yellow Tang, Claisse et al. (2009) found a 41-year old individual. In addition, they found median size and age at the transition between deeper coral-rich and shallow turf dominated habitat use were about 0.75 inch longer and about 2 years older for males than females and coincided with an increase in reproductive output. The sexual difference in size at habitat transition, combined with sexual size dimorphism results in differences in the size distributions of both sexes in the two habitats (Claisse et al. 2009).

Due to the combination of a high fecundity and long life-span, reef fish can likely sustain fairly high levels of continuous harvest. While specific research into sustainable levels of take has not been conducted for the 40 White List species, Ochavillo and Hodgson (2006) suggest collection of between 5% and 25% is sustainable for various reef species in the Philippines that are similar to those on the White List (e.g., tang, wrasse, butterflyfish, angelfish, triggerfish). For 37 of the 40 White List species, the average annual collection as a result of commercial aquarium fishing represents less than 1% of the estimated island-wide population, with the remaining three species averaging less than 5% (Table 15).

In addition to the low percentage of the populations which are harvested each year, commercial aquarium fishing has a distinct advantage over other types of fishing because it is targeted to specific species, and within those species, it primarily targets specific size-classes which minimizes the impact to the brood stock. Because commercial aquarium fishers target the smaller individuals in populations, the larger individuals with higher fecundity are left within the population.

Based on the low percentage of the overall populations collected annually by commercial aquarium fishers, which is spread throughout the year and across multiple areas, as well as the targeted take of smaller, less fecund individuals, commercial aquarium collection would have a ***less than significant direct impact*** on reef fish populations and the reefs in which they occur.

5.4.1.3 Achilles Tang Conservation (Preferred) Alternative

Under the Achilles Tang Conservation (Preferred) Alternative, impacts would be the same as those described in Section 5.4.1.2 for the Status Quo Alternative for all fish and invertebrate species with the exception of the Achilles Tang.

Based on WHAP data, the DAR has suggested decreasing population trends for the Achilles Tang in the WHRFMA. Commercial aquarium fishers worked with DLNR in 2012 to pass HAR 13-60.4, which beginning in 2014 limited commercial aquarium collection of Achilles Tang to 10 individual fish per day (recreational and non-aquarium commercial harvest is not subject to the bag limit). Under the Achilles Tang Conservation (Preferred) Alternative, the daily bag limit for Achilles Tang would be reduced from 10 per day to 5 per day for all fisheries in the WHRFMA.

Therefore, under this alternative, catch of Achilles Tang over the 12-month analysis period is estimated to be reduced by 50% from that under the Status Quo Alternative (5,600; the average amount collected since the 2014 bag limit was imposed) to 2,800, or 1.2% of the island-wide population that would be taken over the 12-month analysis period. This level of take is well below the lower end of what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Based on the analysis presented in Section 5.4.1.2, the Achilles Tang Conservation (Preferred) Alternative would have ***less than significant direct impacts*** on White List and invertebrate species but would have ***beneficial impacts*** for the Achilles Tang when compared to the Status Quo Alternative.

5.4.2 Indirect Effects

5.4.2.1 No Action Alternative

Under the No Action Alternative issuance of Aquarium Permits would not occur and commercial aquarium fishing would stop in the WHRFMA. In East Hawai'i, aquarium collection using legal gear or methods other than fine-mesh nets would continue. Commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, but this is not possible to quantify at this time.

An estimated 332,000 (18-year average) individual fish would not be collected from the WHRFMA (Table 8). In the WHRFMA, a minor, although unquantifiable, increase in number of White List species, non-White List species, and SGCN may occur over the 12-month analysis period, which may provide additional viewing opportunities for tourists, an increase in the prey base, additional individual herbivores to maintain the reef, and increased competition between species for available resources. However, data do not exist that would allow for a thorough analysis of such effects. Nevertheless, it is anticipated that

the No Action Alternative would have a ***less than significant indirect impact*** on tourists, as well as on collected fish populations and the reefs in which they occur.

The 18-year average of 13,700 fish and 10,300 invertebrates may still be collected in East Hawai'i as other methods of collection, not requiring an Aquarium Permit, may continue. It is reasonably foreseeable that some commercial aquarium collectors who previously collected in the WHRFMA may shift their collection to East Hawai'i, and that fish collection in East Hawai'i may subsequently increase from the 18-year average of 13,700 fish due to the closure of the WHRFMA. However, this impact cannot be quantified at this time. In addition, without the use of fine mesh nets, the size class of fish collected may increase over that which is caught with fine mesh nets (i.e., the smaller fish would escape the larger mesh), but again this impact cannot be quantified at this time. These larger fish may represent the brood stock. Nevertheless, it is anticipated that the No Action Alternative would have a ***less than significant indirect impact*** on tourists, as well as on collected fish populations and the reefs in which they occur

5.4.2.2 Status Quo Alternative

Under the Status Quo Alternative issuance of Aquarium Permits would occur and commercial aquarium fish collection would take place. An estimated 332,000 (18-year average) individual, primarily juvenile fish would be collected from the WHRFMA and an estimated 13,700 primarily juvenile fish and 10,300 invertebrates (18-year average) would be collected from East Hawai'i. Removal of over 345,000 primarily juvenile fish and over 10,000 invertebrates would result in a decrease in number of White List species, non-White List species, and SGCN over the 12-month analysis period, which may provide fewer viewing opportunities for tourists, a decrease in the prey base, and reduced competition between species for available resources. However, adequate data do not exist that would allow for a thorough analysis of the potential effects. Nevertheless, given the low proportion of the island populations of the species that would be removed (Table 15, Section 5.4.1.2.5), and the geographic area over which the removal would occur (i.e., WHRFMA, island of Hawai'i), it is anticipated that indirect impacts on viewing opportunities, prey base, and competition would be minor or nonexistent.

Based on the Tissot and Hallacher (2003) study and the 15 years of coral reef data collected and analyzed by the DAR (2018c) as described in Section 5.4.1.2.4, it is not anticipated that any significant indirect impacts to reef habitat would occur under the Status Quo Alternative.

It is anticipated that implementation of the Status Quo Alternative would have a minor effect on invasive fish species over the 12-month analysis period. A total of 128 individual Bluestripe Snappers have been reported as caught in the WHRFMA since 2000. The Peacock Grouper and Blacktail Snapper have not been reported as caught from the WHRFMA over the 18-year assessment period. Of the three invasive fish species, only the Peacock Grouper has been reported as caught (all *n.d.* data) in East Hawai'i.

Based on the analysis in this section, the Status Quo Alternative would have a ***less than significant indirect impact*** on tourists, as well as on collected fish populations and the reefs in which they occur.

5.4.2.3 Achilles Tang Conservation (Preferred) Alternative

Indirect impacts under the Achilles Tang Conservation Alternative would be similar to those of the Status Quo Alternative. The implementation of the 5 per day bag limit on Achilles Tang may provide increased viewing opportunities for tourists, but this cannot be quantified at this time.

Based on the analysis in this section, the Achilles Tang Conservation Alternative would have ***less than significant indirect impact*** on tourists, as well as on collected fish populations and the reefs in which they occur.

5.4.3 Cumulative Impacts

5.4.3.1 Recreational Aquarium Fish Collection

Recreational aquarium fish collection is governed by state law and regulations. Under HRS 188-31, individuals may use fine mesh nets (< 2-inch mesh) to collect aquatic life for an aquarium. A permit is not required if:

- The net has large mesh (more than two-inch mesh);
- The net has small mesh but is less than three feet in length, height, or width, including the handle; or,
- Using a slurp gun.

A recreational aquarium permit is required if using a small mesh net other than a hand net, or a small mesh hand net larger than the dimensions indicated above. Small mesh throw nets are always prohibited. Regardless of whether a permit is required, regulations that impose bag limits, seasons, and limit the size of fish that can be collected apply to all recreational fish collection. The aquarium permit only exempts a person from the small mesh restriction. The recreational aquarium permit rules apply everywhere in the state, except for West Hawai'i, which has its own rules and permits specific to the WHRFMA (HAR §13-60.4).

Under a recreational aquarium permit, individuals are authorized to collect up to five aquatic animals per day (1,825 per year) (HAR 13-60.4). Since 2000, the number of recreational permits issued for the state (island-specific numbers not available) has averaged 159 annually (DAR 2018a). The DAR collected recreational aquarium fish catch information from 1975 until 1985, after which, data collection was discontinued, and currently no reporting of catch is required for recreational aquarium permit holders. Historic recreational catch data were not digitized or processed into a database, and therefore, are not available for analysis (DAR 2018a).

Because reporting of recreational aquarium catch is not required, the impact of recreational collection on White List species cannot be quantified. It is likely that not all recreational permit holders collect the maximum allowable number (1,825); however, if each of the average 159 statewide permit holders were to collect 50% of the allowable catch (913), it would result in the collection of 145,088 aquatic animals per year statewide. If it is assumed that only 50% are White List species, it would result in an estimated

72,544 White List species taken by recreational aquarium permit holders annually. The same estimation would apply to non-White List species. These estimates are likely high based on results from Harding (2017), which found that 57% of recreational aquarium permit holders surveyed had not utilized their permit in the previous 12-month period. Of the 43% who had used their permits, their average yearly catch was 45 fish per permit (Harding 2017), which is well below the maximum allowable number of 1,825 fish or the 50% used to estimate impacts above.

Because reporting of recreational aquarium catch is not required, the impact of the collection on SGCN cannot be quantified. Nevertheless, it is likely that SGCN are occasionally taken by recreational aquarium permit holders. However, given the low number of SGCN individuals collected by commercial aquarium collectors (average 274 Psychedelic Wrasse/year; average 309 Tinker's Butterflyfish/year; average 96 Fisher's Angelfish/year) it is estimated that recreational collectors are collecting fewer individuals of these species.

Because reporting of interactions (e.g., damage from contact with collection equipment) with corals resulting from recreational aquarium collecting and recreational aquarium catch is not required, the impact of the interaction with reef habitat cannot be quantified. However, studies conducted by Tissot and Hallacher (2003) found that aquarium collecting had no significant impact (beneficial nor detrimental) on reef habitat. In addition, 15 years of coral reef data collected and analyzed by the DAR (2018b) found no significant difference in coral cover in areas open to commercial aquarium fish collection. It is assumed that recreational aquarium collect would likewise not have a significant impact.

Recreational aquarium collection impacts to biological resources cannot be fully quantified. However, data presented by DAR (2014a) indicate that some species may be declining in various management areas (e.g., FRA, MPA, Open) due to factors other than commercial aquarium collecting which may include recreational aquarium collection. Given the assumed past and present impacts of recreational aquarium collection on biological resources, foreseeable future actions would likely result in some impacts to biological resources. However, data presented in this FEA demonstrates that implementing the No Action, Status Quo or Achilles Tang Conservation Alternative, would not combine with recreational collection to produce incrementally different impacts on biological resources. Therefore, the cumulative impacts of implementing the No Action, Status Quo or Achilles Tang Conservation (Preferred) Alternative, when combined with the past, present, and reasonably foreseeable future recreational collection of aquarium species, would be *less than significant*.

5.4.3.2 Non-Aquarium Commercial and Non-Commercial Fishing (Non-Aquarium Fish)

Coral reef species are targeted by non-aquarium commercial fishers using numerous fishing gears including nets, traps, hook and line, spear, hand, and other methods. Commercial fish industry landings in Hawai'i have increased annually since 2006 and the NOAA reported total landings in 2013 were valued near \$108 million dollars (DLNR 2015). Akule (coastal pelagic scads) dominate nearshore commercial landings and are typically collected using surround or fence nets, gillnets or hook and line (Western Pacific Regional Fishery Management Council-WPRFMC 2017). Other top species by weight and value include soldierfishes, parrotfish, surgeonfishes and goatfishes, which may be targeted because they may bring a high price in some seasons (WPRFMC 2017).

Non-commercial fishing includes subsistence/consumptive, recreational, and cultural fishing and gathering activities that occur in ocean and coastal zones. The State of Hawai'i has the most developed recreational fishing infrastructure in the U.S. Pacific and is a substantial economic contributor to the State. The State of Hawai'i does not track non-commercial fish collection. However, creel surveys suggest that the total inshore non-commercial catch from reef areas could be as high as the reported commercial catch (WPRFMC 2017).

The most recent DAR summary report available on the West Hawai'i aquarium fishery (DAR 2014a) analyzed data collected since 2003 by the Hawai'i Marine Recreational Marine Fishing Survey (HMRFS) and subsequently since 2007 by NOAA's Marine Recreational Information Program (MRIP) to gain perspective on the generalized impact on reef fishes by aquarium collecting versus other types of reef fishing activities. Statewide, looking at the period from 2008-2011, the number of reef fishes caught by the recreational and commercial sectors was found to be comparable, averaging 1,511,025 per year for recreational fishers and 1,554,010 per year for commercial (i.e., non-aquarium) fishers. The combined catch was found to be 1.7 times the total statewide take of aquarium fishes (1,810,402/year).

McCoy et al. (2018) found that 12.8% of households on Hawai'i participate in recreational (non-aquarium) fishing. Most of this fishing is conducted using lines from shore (65.6%), which catches an estimated 0.33 pounds of reef fish per hour fished (McCoy et al. 2018). The results of this study found that on Hawai'i, non-commercial annual catch was approximately 10.5 times commercial catch when comparing the average pounds per year between 2004 and 2013 (McCoy et al. 2018).

In West Hawai'i (i.e., the WHRFMA), on average the commercial aquarium fishery annually takes 1.8 times (343,729/year) the number of reef fishes taken annually by recreational and other commercial fishers combined (194,674/year) (DAR 2014a). However, if Yellow Tang, which is primarily collected at small sizes and generally not targeted by other fishers, is excluded, on average the recreational and commercial fisheries combine to take 3 times the number of reef fishes (194,674/year) caught annually by aquarium collectors (64,815/year) (DAR 2014a). In terms of reef fish biomass caught by the different fisheries in West Hawai'i (i.e., the WHRFMA), DAR (2014a) concluded that more biomass is taken by the combined recreational and commercial fisheries regardless of including Yellow Tang (2.8 times) or excluding Yellow Tang (8.6 times). In addition, unlike the aquarium fishery which targets mostly immature fish, the commercial and recreational fisheries selectively target the larger breeding portion of the population which has profound implications for the sustainable usage of the resource (DAR 2014a).

The non-aquarium commercial fish industry targets some coral reef species; however, commercial non-aquarium fishers do not directly target most White List species. Data for non-aquarium commercial fishing is lacking due to the DAR confidentiality regulations (HRS §189-3). Because most non-aquarium commercial fishers do not target aquarium species, there are usually less than three fishers reporting. Therefore, the data presented in Table 16 are underestimated.

Table 16. Available data on White List species collected by commercial non-aquarium fishers in the State and on the island of Hawai'i from 2000-2017 (DAR 2018a). n.d. = Not Disclosed (see Section 5.1).

White List Species	WHRFMA Catch		East Hawai'i Catch		Island of Hawai'i Catch		State Catch Total	
	Total	Annual Average	Total	Annual Average	Total	Annual Average	Total	Annual Average
Achilles Tang	1,552	87	2,435	136	3,987	222	10,641	592
Yellow Tang	n.d.		n.d.		n.d.		n.d.	
Kole (=Goldring Surgeonfish, Yelloweye, Goldring)	4,773	266	28,496	1,584	33,269	1,849	103,391	5,744
Peacock Grouper (=Roi, Bluespot Peacock Grouper)	212	12	73	4	285	16	17,892	994
Eyestripe Surgeonfish (=Palani)	4,891	272	2,412	134	7,303	406	202,286	11,239
Orangeband (=Shoulder) Surgeonfish	396	22	604	34	1,000	56	95,380	5,299
Saddle Wrasse	4	1	62	4	66	4	1,150	64
Brown Surgeonfish (=Lavender, Forktail Tang)	n.d.		58	4	58	4	58	4
Bluestripe Snapper (=Taape)	15,499	861	64,660	3,593	80,159	4,454	715,913	39,773
TOTAL COLLECTED	27,327		98,800		126,127		1,146,711	

It is expected that the average number of White List individuals collected by non-aquarium commercial fishers would continue at these rates (at a minimum) over the 12-month analysis period.

Because reporting of non-aquarium recreational, cultural and subsistence/consumptive catch is not required, the impact of recreational, cultural and subsistence/consumptive collection on White List species, non-White List species, and SGCN cannot be quantified. However, nearshore recreational and subsistence catch is likely at similar catch levels as that of non-aquarium commercial fishing (Friedlander 2017).

The impacts of non-aquarium commercial and non-commercial fishing on biological resources cannot be fully quantified. However, as discussed above data presented by DAR (2014a) indicate that some species are declining in various management areas (e.g., FRA, MPA, Open) due to factors other than commercial aquarium collecting, which include non-aquarium commercial and non-commercial fishing. However, there is no way to fully quantify the cumulative effects of past and ongoing non-aquarium commercial and non-commercial fishing on biological resources. Given the assumed past and present impacts of non-aquarium commercial and non-commercial fishing on biological resources, foreseeable future actions would likely result in some impacts to biological resources.

Under the No Action Alternative, commercial aquarium fishers may no longer find it feasible to target aquarium fish and may begin to participate in other fisheries, which may increase pressure from non-aquarium commercial fishing and non-commercial fishing, but this impact cannot be quantified at this time. However, data presented in this FEA demonstrates that implementing the No Action Alternative or Status Quo Alternative, while still adverse, would not combine with non-aquarium commercial and non-commercial collection to produce incrementally different impacts on biological resources. Therefore, the cumulative impacts of implementing the No Action Alternative or Status Quo Alternative, when combined with the past, present, and reasonably foreseeable future non-aquarium commercial and non-commercial fishing on biological resources, would be ***less than significant***.

The cumulative impacts to biological resources would be the same under the Achilles Tang Conservation (Preferred) Alternative as described above for the Status Quo Alternative, with the exception of cumulative impacts to the Achilles Tang. The Achilles Tang population faces pressure on all fronts. Commercial and recreational aquarium fishers collect young, small Achilles Tang in their fishery, while non-aquarium commercial and non-commercial (e.g., non-aquarium recreation, subsistence, Native Hawaiian traditional collection) fisheries target adult, large Achilles Tang in their fisheries. Research studies and data analyzed in this FEA cannot identify a single fishery or factor (e.g., climate change, runoff, pollution) responsible for the downward trend observed in the WHRFMA (DAR 2018b). As with all complex systems, multiple causes likely play a role. Implementing the Achilles Tang Conservation (Preferred) Alternative (i.e., reducing the take to no more than five (5) individual Achilles Tang per day for all fisheries in the WHRFMA) would have a ***cumulative beneficial impact*** on the species and the reef ecosystem. However, it is imperative that for this bag limit to be effective, it must apply to all other fisheries within the WHRFMA, as limiting Achilles Tang collection by commercial aquarium fishers alone will not address the overall conservation issues facing the species.

5.4.3.3 Commercial Aquarium Collection

As noted in Section 1.0, the commercial aquarium collection fishery has existed in Hawai'i since the late 1940s. Commercial aquarium collection pursuant to permits issued by DLNR was only recently halted after the Supreme Court of Hawai'i's determination that DLNR's issuance of the permits required compliance with HEPA. As explained in Section 2.0, the scope of the analysis of this FEA is limited to a 12-month period, because Commercial Aquarium Permits must be renewed by DLNR every year. Given the long history of commercial aquarium collection in Hawai'i, it is reasonably foreseeable that commercial aquarium collection will continue. Based on available data regarding species abundance and yearly commercial aquarium catch over the past 18 years, it is expected that in the reasonably foreseeable future, commercial aquarium collection will proceed generally at the same rate and have the same level of impact as in the past 18 years. To the extent new data regarding the impacts of commercial aquarium collection on biological resources becomes available in the future, DLNR may consider those data and, to the extent necessary, supplement this impacts analysis.

As noted in Section 5.4.1.2.5:

- Reef fish have high fecundity and are long lived, and as such produce a large number of young each year over many years;

Environmental Consequences

- Commercial aquarium collection targets juvenile fish leaving behind the adult broodstock; and,
- A low percentage of the overall population of each of the targeted species would be collected annually by commercial aquarium fishers, and this collection would be spread throughout the year and across multiple areas.

As such, Section 5.4.1.2.5 concludes that commercial aquarium collection would not have a significant impact on island of Hawai'i reef fish populations. Thus, it is not anticipated that losses would accumulate over time due to the low percentage taken each year and the high fecundity of reef fishes. Accordingly, implementation of the No Action Alternative, Status Quo Alternative or the Preferred Alternative, when combined with past, present, and reasonably foreseeable future commercial aquarium collection, would result in ***less than significant impacts*** on biological resources.

5.4.3.4 Tourism

Hawai'i is a major tourist destination and tourism contributes the most to the state's economy. Over time this industry has grown and reshaped the native landscapes and sensitive ecosystems through major coastal development, increased energy consumption, and tourism based recreational activities. Major coastal development for tourism (i.e., hotels, resorts, restaurants, recreational outfitters) and associated point source pollution (e.g., petroleum hydrocarbons, pharmaceuticals, heavy metals, and sediment from agriculture and development) threaten the quality of coral reef ecosystems (State of Hawai'i 2010). When coral reefs are damaged, it could potentially expose reef dependent organisms and leave them vulnerable to other threats such as disease, predation, and climate change (State of Hawai'i 2010), including the reef fishes and other aquatic animals targeted by both commercial and recreational aquarium fishers.

Human interaction with native flora and fauna is also a growing concern. Damage to sensitive ecosystems (i.e., coral reefs, tide pools, shorelines) through tourism based recreation overuse (e.g., SCUBA diving, snorkeling, etc.) has been attributed to killing many aquatic organisms that in turn may affect many more species that rely on such organisms as a food source. Damage to coral reef habitat in association with tourism (through coastal development, point source pollution, and recreational activities) threatens most White List species that are dependent on reefs for habitat and foraging in the foreseeable future (State of Hawai'i 2010).

Tourism in Hawai'i can affect biological resources. The impacts of implementing any of the three alternatives under consideration on biological resources are expected to be ***less than significant***. Therefore, the combined impacts of implementing any of the three alternatives under consideration, with the impacts of tourism, are not expected to produce incrementally different impacts on biological resources.

5.4.3.5 Climate Change

Warming of the planet and rising average temperatures may produce variations in precipitation and temperature patterns, sea levels, and storm severity. This process is commonly referred to as "climate change." Changes in sea surface temperatures have been documented, with temperatures warmer than normal in recent years (increase of 0.22 °F per decade), and even reaching record levels of thermal

stress in September 2015 (Casey 2001; Gove et al. 2016). Warmer water temperatures can result in coral bleaching. When water is too warm, corals will expel the algae living in their tissues causing the coral to turn completely white. When coral bleaches, it is not dead; corals can survive a bleaching event, but they are under more stress and are subject to mortality. In 1998, global coral bleaching and die-off was unprecedented in geographic extent, depth, and severity. Researchers predict that coral bleaching events would occur when the average sea temperatures are 33.8 °F or more above average (DLNR 2015). In the fall of 2015, leeward reefs of Hawai'i Island suffered catastrophic coral mortality due to widespread and severe coral bleaching. Survey results indicated that overall coral bleaching prevalence averaged 53.3% and resulted in an average coral cover loss of 49.7%. Regional differences in bleaching prevalence and subsequent coral mortality were not detected. High post-bleaching mortality was detected for the coral species, *Pocillopora meandrina*, *Porites evermanni*, and *Porites lobata* (Kramer et al., 2016). Acidification can also damage corals and marine life that depend on minerals for shell/skeletal development. The acidity of the Pacific Ocean has increased by about 25% over the last 300 years and is predicted to increase 40-50% by 2100 (EPA 2016).

Changes in climate currently impact the physical resources of Hawai'i. Warming sea temperatures and acidification could result in damage, disease outbreaks, and ultimately death of coral reefs. The weakening or loss of coral reef ecosystems may threaten entire marine ecosystems in the region as many organisms, including numerous fish species, are not only dependent on these ecosystems for suitable habitat, but due to the isolation of the islands in the central pacific, are unable to move to new environments that provide suitable conditions for survival (EPA 2016).

Several White List and non-White List species are endemic to the Hawaiian Archipelago (including Johnston Atoll) and therefore may be impacted when faced with changes in climate over time (e.g., warming temperatures, habitat loss due coral bleaching, etc.). The extent and severity of impacts to White List Species from climate change have been ongoing for decades and are expected to increase in the foreseeable future. If environmental fluctuations resulting from climate change (e.g., tropical storms, coral bleaching episodes, acidification, etc.), or other natural or human factors, change habitat conditions, fishing mortality may present a higher risk to some White List and non-White List species and SGCN.

The past, present, and reasonably foreseeable impacts of climate change on biological resources are adverse. However, the impacts of implementing the No Action, Status Quo or Achilles Tang Conservation Alternative on biological resources are expected to be **less than significant**. As a result, the combined impacts of implementing the No Action, Status Quo or Achilles Tang Conservation Alternative, with the past, present, and reasonably foreseeable actions associated with climate change, are not expected to produce incrementally different impacts on biological resources.

5.5 EVALUATION OF HEPA SIGNIFICANCE CRITERIA

1. The Preferred Alternative (i.e, Achilles Tang Conservation Alternative) does not involve an irrevocable commitment or loss or destruction of any natural or cultural resource. If the average catch based on 18 years of data were to occur over the 12-month analysis period, the collection of 37 of the 40 White List species would be less than 1% of their respective overall island of Hawai'i populations (Section 5.4.1.3, Table 15 Average Percent of Island of Hawai'i Population).

Environmental Consequences

Collection of Achilles Tang would be reduced by 50% from the Status Quo, to 1.2% of their overall population. Collection of the remaining two species would be less than 5% of their overall population. Ochavillo and Hodgson (2006) suggest collection of between 5%-25% is sustainable for various reef species similar to those on the White List (e.g., tang, wrasse, butterflyfish, angelfish, triggerfish). Based on the low percentage of the overall populations collected annually by commercial aquarium fishers, which is spread throughout the year and across multiple areas, as well as the targeted take of smaller, less fecund individuals, commercial aquarium collection likely has minimal impacts on populations in general.

Based on the results of the Tissot and Hallacher (2003) study and the 15 years of data collected and analyzed by the DAR (2018c), no significant direct impacts to reef habitat due to commercial aquarium fishing would occur under the Preferred Alternative.

Aside from reducing the daily bag limit for Achilles Tang for all fisheries in the WHRFMA, the Preferred Alternative does not include any activities different from, or in addition to, those that have occurred in the past. There would be no construction of permanent or semi-permanent infrastructure, no discharges into coastal, surface or ground waters, and no dredging, and no significant use of hazardous materials that could be released into the environment.

The DLNR's issuance of Aquarium Permits is not anticipated to result in significant beneficial or adverse impacts to water and air quality, geology and soil resources, aesthetics, noise, vegetation, terrestrial wildlife, and avian species, threatened and endangered species, land use, public health and safety, communications, historical resources, transportation, utilities, or population and demographics from the current baseline condition.

2. The Preferred Alternative does not curtail the range of beneficial uses of the environment. Act 306 has created a platform on which the public can learn about and participate in the management of the fishery. Since the Act's implementation, the DAR has created Fish Replenishment Areas and conducts annual monitoring and research on the fish and coral, ensuring that the full range of beneficial uses of the environment remain now and into the future. The loss of the aquarium fishery may mean the loss of funds to support monitoring and research that benefits reef ecosystems.
3. The Preferred Alternative does not conflict with the State's long-term environmental policies, goals, or guidelines as expressed in chapter 344 HRS.
4. The Preferred Alternative does not substantially affect the economic welfare, social welfare, and cultural practices of the community or State, but plays an important role as a nearshore fishery in the State. For the period 2000 to 2017, the aquarium fishery within the WHRFMA alone added an average of \$1,354,045 (inflation-adjusted 2017 dollars) annually to the state of Hawai'i's economy, while the overall aquarium fishery within the state of Hawai'i added an average of \$2,075,088 (inflation-adjusted 2017 dollars) to the economy. In 2017, it is estimated that up to 57 individuals were directly employed in the aquarium fishery in the WHRFMA (up to 266 employed in the state of Hawai'i). Loss of the fishery would result in the loss of income, tax revenue, and jobs.

Environmental Consequences

5. The Preferred Alternative will not affect public health.
6. The Preferred Alternative does not involve substantial secondary impacts, such as population changes or effects on public facilities. There is no expectation that populations or the public will be negatively impacted by continuing the fishery.
7. The Preferred Alternative does not involve a substantial degradation of environmental quality. Two studies have concluded that the fishery has no significant impact on coral or the reef ecosystem (Tissot and Hallacher 2003; DAR 2018c).
8. The Preferred Alternative does not have considerable cumulative effect upon the environment or involve commitment for larger actions.
9. The Preferred Alternative does not affect threatened or endangered species or their habitats nor does it have a significant impact on rare species.
10. The Preferred Alternative does not detrimentally affect air or water quality or ambient noise levels. On average, approximately 28 boats are involved in the island of Hawai'i fishery as compared to the thousands of other boats on the waters of Hawai'i.
11. The Preferred Alternative would not significantly affect or suffer damage by being located in environmentally sensitive areas, geologically hazardous land, estuaries, freshwater, or coastal water. As noted earlier, the fishery has been active since the late 1940s. Regulations have been implemented restricting the fishery from sensitive areas.
12. The Preferred Alternative does not substantially affect scenic vistas and view planes identified in county or state plans or studies.
13. The Preferred Alternative does not require substantial energy consumption.
14. No significant adverse effects would occur as a result of the Preferred Alternative. Therefore, mitigation for impacts is not warranted and no mitigation measures would be implemented.

Under HRS 188-31, the DLNR may issue a commercial Aquarium Permit to a qualified party for a period of one year in duration, subject to renewal. Therefore, this EA analyzes the direct, indirect, and cumulative impacts of Aquarium Permits on affected resources for a period of one year. Less than significant or slightly beneficial impacts are expected under the Preferred Alternative. Therefore, at the end of one year, if environmental conditions presented in this FEA (e.g., annual catch, population estimates and/or trends, reef health, etc.) are not materially different than those analyzed in this FEA, then this FEA may adequately disclose the environmental impacts of new or renewed Aquarium Permits. Consequently, DLNR will reevaluate the analysis contained in this FEA on an annual basis prior to renewal or issuance of commercial Aquarium Permits and it will assess if any new information exists warranting reevaluation of this analysis.

6.0 AGENCIES, ORGANIZATIONS, AND INDIVIDUALS CONSULTED

6.1 FEDERAL AGENCIES

The following federal agencies were consulted during the development of this FEA:

- National Marine Fisheries Service
- Coral Reef Ecosystem Program
- Western Pacific Regional Fishery Management Council

6.2 STATE AGENCIES

The following state agencies were consulted during the development of this FEA:

- Hawai'i Department of Land and Natural Resources, Division of Aquatic Resources
- Hawai'i State Department of Health, Office of Environmental Quality Control

6.3 COMMUNITY ORGANIZATIONS

The following community organizations were consulted during the development of this FEA:

- Hawai'i Fishermen's Alliance for Conservation and Tradition
- Hawai'i Hunting, Farming & Fishing Association
- Pacific Islands Fisheries Group

6.4 INDEPENDENT REVIEWERS

The Applicant solicited independent scientific peer reviews of the information contained in this FEA from the following individuals (Review comments received are found in Appendix A):

- Dr. Rob Toonen, Researcher, Hawai'i Institute of Marine Biology, SOEST, University of Hawai'i at Mānoa
- Dr. Brian Bowen, Researcher, Hawai'i Institute of Marine Biology, University of Hawai'i at Mānoa
- Dr. Richard Pyle, Database Coordinator, Associate Zoologist, Dive Safety Officer, Bernice Pauahi Bishop Museum.

6.5 INDIVIDUALS

The Applicant consulted with the following Native Hawaiians knowledgeable in the geographic areas under review and the cultural uses, beliefs and practices at issue during the development of this FEA:

- Alika Garcia
- Makani Christensen, President, Hunting Farming and Fishing Association
- Mikolelehua Barrios
- John Deponte
- David (Puna) Brown
- Bronson Beyer
- Chad Souza
- Kamalou Souza

7.0 DRAFT EA PUBLIC REVIEW

In accordance with HEPA, the DEA was circulated for public review and comment. The DEA was published in The Environmental Notice for public review on April 8, 2018 in accordance with requirements set forth in the HEPA. Public comments were accepted during a 30-day period following publication. A total of 836 responses were received: 435 supported the conclusions of the DEA and issuance of commercial aquarium permits; 398 did not support the conclusions of the DEA and opposed issuance of commercial aquarium permits; and 3 did not express support or opposition. Comments received during the comment period were taken into account in assessing impacts of the proposed action and resulted in some modifications in this FEA. Responses to comments on the DEA can be found in Appendix B.

The DEA was distributed via copies or email on April 7, 2018 to the following elected officials, federal agencies, and state, county, and local offices, and to individuals and organizations. Copies of the transmittal emails and letters are found in Appendix C.

- Federal Agencies
 - Department of Agriculture, National Resources Conservation Service
 - Department of Commerce, National Marine Fisheries Service
 - Department of Homeland Security, Coast Guard
 - Department of the Interior, Fish and Wildlife Service
 - Department of the Interior, Geological Survey, Pacific Islands Water Science Center
 - Department of the Interior, National Parks Service
 - Department of Transportation, Federal Aviation Administration
 - Department of Transportation, Federal Transit Administration
 - Western Pacific Fishery Management Council

- Stage Agencies
 - Department of Agriculture
 - Department of Accounting and General Services
 - Department of Business, Economic Development and Tourism
 - Department of Business, Economic Development and Tourism, Research Division Library
 - Department of Business, Economic Development and Tourism, Strategic Industries Division
 - Department of Business, Economic Development and Tourism, Office of Planning
 - Department of Defense
 - Department of Education, Hawaii State Library, Hawaii Documents Center
 - Department of Education, Hawaii State Library, Kaimuki Regional Library
 - Department of Education, Hawaii State Library, Kaneohe Regional Library
 - Department of Education, Hawaii State Library, Pearl City Regional Library
 - Department of Education, Hawaii State Library, Hawaii Kai Regional Library
 - Department of Education, Hawaii State Library, Hilo Regional Library
 - Department of Education, Hawaii State Library, Kahului Regional Library
 - Department of Education, Hawaii State Library, Lihue Regional Library
 - Department of Hawaiian Home Lands
 - Department of Health, Environmental Health Administration
 - Department of Land and Natural Resources
 - Department of Land and Natural Resources, State Historic Preservation Division
 - Department of Transportation
 - University of Hawaii, Water Resources Research Center
 - University of Hawaii, Environmental Center
 - University of Hawaii, Thomas H. Hamilton Library
 - University of Hawaii, Edwin H. Mookini Library
 - University of Hawaii, Maui College Library
 - University of Hawaii, Kauai Community College Library
 - Office of Hawaiian Affairs
 - Legislative Reference Bureau Library
- County of Hawaii
 - Department of Environmental Management
 - Department of Parks and Recreation
 - Department of Public Works
 - Department of Water Supply
 - Planning Department
- County of Kauai
 - Department of Planning
 - Department of Public Works
 - Department of Water
- County of Maui
 - Department of Planning

- Department of Public Works
- City and County of Honolulu
 - Board of Water Supply
 - Department of Customer Services, Municipal Library
 - Department of Design and Construction
 - Department of Environmental Services
 - Department of Facility Maintenance
 - Department of Planning and Permitting
 - Department of Parks and Recreation
 - Department of Transportation Services
- Libraries and Depositories
 - Nearest public library
- News Media
 - The Garden Island
 - Hawaii Tribune Herald
 - Honolulu Star Advertiser
 - Maui News
 - Molokai Dispatch
 - West Hawaii Today
- Elected and Other Officials
 - County Council Representatives
 - Valerie Poindexter
 - Ron Menor
 - Neighborhood Board Representative (Oahu only)
 - State Representatives
 - Scott Saiki
 - Kaniela Ing
 - Cindy Evans
 - State Senators
 - Ronald Kouchi
 - Karl Rhoads
 - Lorraine Inouye
 - U.S. Representatives
 - Tulsi Gabbard
 - Colleen Hanabusa
 - U.S. Senators
 - Brian Schatz
 - Mazie Hirono
- Consulted parties and commenters
 - Paul H. Achitoff
 - Summer Kupau-Odo
 - Center for Biological Diversity
 - Humane Society of the United States

- Conservation Council of Hawai'i
- Rene Umberger
- Mike Nackachi
- Willie Kaupiko
- Ka'imi Kaupiko
- American Zoos and Aquariums
- Pacific Islands Fisheries Group
- Hawai'i Hunting, Farming and Fishing Association

In the cover letter for the publication of the DEA, the DLNR requested comment on four specific issues:

1. The effects of the Commercial Aquarium Fishery on Achilles Tang (*Acanthurus achilles*), and its sustainability given its life history characteristics, current population trends, and harvest by other fisheries.
2. The adequacy of the analysis presented in this DEA, including but not limited to removal and replenishment rates for vulnerable species; specifically, how is the estimated sustainable range of 5% to 25% annual take of the estimated total population arrived at, and should the threshold be 5% or 25%.
3. The interpretation of data presented in this DEA, including the analysis of NOAA NMFS Coral Reef Ecosystem Project (CREP) data versus DLNR Division of Aquatic Resources West Hawai'i Aquarium Project (WHAP) data.
4. Conservation measures to minimize or avoid impacts to target species, and specifically, whether other alternatives might be proposed to minimize or avoid impacts other than the two presented of no action, with no aquarium permits issued, and the preferred alternative of programmatic issuance of aquarium permits for the Island of Hawai'i - such as consideration of specific management measures for Achilles tang and other species.

The Applicant's responses to the request for comment along with an independent scientific reviewer's comments on the responses are found in Appendix D.

8.0 LIST OF PREPARERS

Pet Industry Joint Advisory Council	Stantec Consulting Services Inc.
Bob Likins	Terry VanDeWalle Senior Ecologist
	Jeffrey H. Schwierjohann Senior Biologist
	Josh Otten Wildlife Biologist
	Molly Stephenson Wildlife Biologist

9.0 LITERATURE CITED

- Ahti, A.P., R.R. Coleman, J.D. DiBattista, M.L. Berumen, L.A. Rocha, and B.W. Bowen. 2016. Phylogeography of Indo-Pacific reef fishes: Sister wrasses *Coris gaimard* and *C. cuvieri* in the Red Sea, Indian Ocean, and Pacific Ocean. *Journal of Biogeography* 43:1103-1115
- Allen, G.R. 1985. Butterfly and angelfishes of the world. Vol. 2. 3rd edit. in English. Mergus Publishers, Melle, Germany. Description available at: <http://www.fishbase.org/summary/Centropyge-potteri.html>. Accessed on 3 January 2018.
- Allen G.R. 1985a. FAO species catalogue, Vol. 6, Snappers of the world. An annotated and illustrated catalogue of lutjanid species known to date. *FAO Fisheries Synopsis*, 125(6):1-208.
- Bachhet, P., T. Zysman and Y. Lefèvre. 2006. Guide to Tahiti and her Islands fish. Tahiti (French Polynesia): Editions the Windward Islands. 608 pp.
- Berkeley, S.A., M.A. Hixon, R.J. Larson et al. 2004. Fisheries sustainability via protection of age structure and spatial distribution of fish populations. *Fisheries* 29: 23-32.
- Birkeland, C., P.K. Dayton. 2005. The importance in fishery management of leaving the big ones. *Trends in Ecology and Evolution* 20: 356-358.
- Bobko, S.J., S.A. Berkeley. 2004. Maturity, ovarian cycle, fecundity, and age-specific parturition of black rockfish (*Sebastes melanops*). *Fisheries Bulletin* 102: 418-429.
- Breder, C.M. and D.E. Rosen. 1966. Modes of reproduction in fishes. T.F.H. Publications, Neptune City, New Jersey. 941 p. Description available at: <https://www.fishbase.de/References/FBRefSummary.php?id=205>. Accessed throughout preparation of EA.

Literature Cited

- Brock, R.E. 1981. Colonization of Marine Fishes in a Newly Created Harbor, Honokohau, Hawai'i! *Pacific Science* 34(3): 313-326.
- Burgess, W.E. 1978. Butterflyfishes of the world. A monograph of the Family Chaetodontidae. T.F.H. Publications, Neptune City, New Jersey. Description available at: <https://www.fishbase.de/References/FBRefSummary.php?id=205>. Accessed throughout preparation of EA.
- Bushnell, M.E. 2007. Reproduction of *Zebrasoma flavescens*: oocyte maturation, spawning patterns and an estimate of reproductive potential for female Yellow Tang in Hawai'i. University of Hawai'i.
- Bushnell, M.E., J.T. Claisse, and C.W. Laidley. 2010. Lunar and seasonal patterns in fecundity of an indeterminate, multiple-spawning surgeonfish, the Yellow Tang *Zebrasoma flavescens*. *Journal of Fish Biology*. 76:1343–1361. 19pp.
- Casey K.S. and P. Cornillon. 2001. Global and Regional Sea Surface Temperature Trends *Journal of Climate* 14.18: 3801-3818.
- Cesar, H., P. van Beukering, S. Pintz, J. Dierking. 2002. Economic valuation of the coral reefs of Hawaii; Final report. Available at: <https://www.coris.noaa.gov/portals/pdfs/hicesar.pdf>. Accessed May 10, 2018.
- Choat, J.H., Clements, K.D. and Robbins, W.D. 2002. The trophic status of herbivorous fishes on coral reefs. 1. Dietary analyses. *Marine Biology* 140: 613-623.
- Choat, J.H. and L.M. Axe. 1996. Growth and longevity in acanthurid fishes; an analysis of otoliths increments. *Marine Ecology Progress Series* 134: 15-26.
- Claisse J.T., M. Kienzle, M.E. Bushnell, D.J. Shafer, and J.D. Parrish. 2009. Habitat- and sex-specific life history patterns of Yellow Tang *Zebrasoma flavescens* in Hawai'i, USA. *Marine Ecology Progress Series*. 389:245-255.
- Coral Reef Ecosystem Program (CREP); Pacific Islands Fisheries Science Center. 2018. National Coral Reef Monitoring Program: Stratified Random surveys (StRS) of Reef Fish, including Benthic Estimate Data of the U.S. Pacific Reefs since 2007. Metadata available at: <https://inport.nmfs.noaa.gov/inport/item/24447>. Accessed 12 February 2018.
- Craig, M.T. 2010. *Macropharyngodon geoffroy*. The IUCN Red List of Threatened Species 2010. Available at: <http://dx.doi.org/10.2305/IUCN.UK.20104.RLTS.T187680A8599138.en>. Accessed on January 3, 2018.
- Division of Aquatic Resources, Hawai'i (DAR). 2004. Report to the twenty-third legislature regular session of 2005 on a report on the findings and recommendations of effectiveness of the West Hawai'i Regional Fishery Management Area. State of Hawai'i. 38pp.

Literature Cited

- DAR. 2010. Walsh, W., Cotton, S., Carman, B., Livnat, L., Osada, K., Barnett, C., Tissot, B., Stevenson, T., Wiggins, C., Tarnas, D., Bourdon, and K. Peck. Report on the Findings and Recommendations of Effectiveness of the West Hawai'i Regional Fishery Management Area. Department of Land and Natural Resources State of Hawai'i, State of Hawai'i.
- DAR. 2014a. Report to the thirtieth legislature regular session of 2015 on a report on the findings and recommendations of effectiveness of the West Hawai'i Regional Fishery Management Area. State of Hawai'i. 51pp.
- DAR. 2014b. Coral and Live Rock Rules of Hawai'i. Available at <http://dlnr.hawaii.gov/dar/habitat/coral-reefs/coral-and-live-rock-laws-of-hawaii/>. Accessed January 12, 2018.
- DAR. 2017. Update of court rulings regarding aquarium fishing, including FAQs. Available at: <http://dlnr.hawaii.gov/dar/announcements/update-of-supreme-court-ruling-regarding-aquarium-fishing/>. Accessed on January 29, 2018.
- DAR. 2018a. Permit, value, level of effort, and catch data from 1976-2017 provided by DAR per preparers request in reference to this report.
- DAR. 2018b. 2017 summary statistics on the Yellow Tang, goldring surgeonfish, and Achilles Tang. 3pp.
- DAR. 2018c. Impact of Commercial Aquarium Collecting on West Hawai'i Coral Cover. DAR Report. 4pp.
- Deardorff, T.L., Stanton, F.G. 1983. Nematode-induced abdominal distention in the Hawaiian Puffer Fish, *Canthigaster jactator* (Jenkins). *Pacific Science* 37(1): 45-47.
- DeFelice, R.C., L.G. Eldredge, and J.T. Carlton (L.G. Eldredge and C.M. Smith eds.). 2001. A Guidebook of Introduced Marine Species in Hawai'i. Bishop Museum Technical Report 21, August 2001. Sponsored by grants from the Packard Foundation, U.S. Fish and Wildlife Service, and National Marine Fisheries Service to B.P. Bishop Museum and the University of Hawai'i. 70pp.
- Dierking, J. 2002. Socioeconomics of the aquarium fish industry in West Hawai'i in 'Economic Valuation of the Coral Reefs of Hawai'i' (Cesar, van Beukering, Pintz, Dierking 2002). That publication is a result of research funded by the National Oceanic and Atmospheric Administration, Coastal Ocean Program, under awards NA870A0381, NA960P0187, NA060A0388, and NA160A1449 to the University of Hawai'i for the Hawai'i Coral Reef Initiative Research Program. Cesar Environmental Economics Consulting (CEEC). 22pp.
- Dierking, J. 2007. Effects of the introduced predatory fish *Cephalopholis argus* on native reef fish populations in Hawai'i.
- Dierking J., I.D. Williams, and W. Walsh. 2009. Diet composition and prey selection of *Cephalopholis argus* in Hawai'i. *Fishery Bulletin*. 107(4):464-476.
- Domeier, M.L. and P.L. Colin. 1997. Tropical reef fish spawning and aggregations: defined and reviewed. *Bull. Mar. Sci.* 60(3):698-726.

Literature Cited

- Earthjustice. 2012. Citizens and Conservation Groups File Suit to Protect Hawai'i's Reef Ecosystems. State issuance of aquarium collection permits without environmental review poses danger to already-stressed coral reefs. Available at: <https://earthjustice.org/news/press/2012/citizens-and-conservation-groups-file-suit-to-protect-hawai-i-s-reef-ecosystems>. Accessed January 5, 2018.
- Eble, J.A., R. Langston, and B.W. Bowen. 2009. Growth and Reproduction of Hawaiian Kala, *Naso unicornis*. Report prepared for Fisheries Local Action Strategy, Division of Aquatic Resources. 15pp.
- Eble, J.A., L.A. Rocha, M.T. Craig, and B.W. Bowen. 2011. Not all larvae stay close to home: Long-distance dispersal in Indo-Pacific reef fishes, with a focus on the Brown Surgeonfish (*Acanthurus nigrofuscus*). *Journal of Marine Biology*, Article ID 518516.
- Environmental Protection Agency (EPA). 2016. What Climate Change Means for Hawai'i. Available at: <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-hi.pdf>. Accessed on January 30, 2018. 2pp.
- Friedlander, A.M., M.K. Donovan, K.A. Stamoulis, I.D. Williams, E.K. Brown, E.J. Conklin, E.E. DeMartini, K.S. Rogers, R.T. Sparks, and W.J. Walsh. 2017. Human-induced gradients of reef fish declines in the Hawaiian archipelago viewed through the lens of traditional management boundaries. *Aquatic Conservation Marine and Freshwater Ecosystems*, September 2017, 12pp. doi: 10.1002/aqc.2832.
- Gaither, M.R., G. Aeby, M. Vignon, Y. Meguro, M. Rigby, C. Runion, R.J. Toonen, C.L. Wood, and B.W. Bowen. 2013. An invasive fish and the time-lagged spread of its parasite across the Hawaiian archipelago. *PLoS One* 8: e56940.
- Giddens J.L., C. Wiggins, A.M. Friedlander, E. J. Conklin, K. A. Stamoulis, and D. Minton. 2017. Assemblage-level effects of the introduced peacock hind (*Cephalopholis argus*) on Hawaiian reef fishes. *Environmental Biology of Fishes*. 14pp.
- Gove, J.M., J.J. Polovina, W.J. Walsh, A. Heenan, I.D. Williams, L.M. Wedding, R.J. Ingram, J. Lecky, K.L.L. Oleson, H. Walecka, S.F. Heron, C.S. Couch and E.A. Howell. PIFSC. 2016. West Hawai'i Integrated Ecosystem Assessment: Ecosystem Trends and Status Report. NOAA Fisheries Pacific Science Center, PIFSC Special Publication, SP-16-004, 46p. doi:10.7289/V5/SP-PIFSC-16-004.
- Hallacher L.E. and B.N. Tissot. 1999. QUEST: Quantitative Underwater Ecological Survey Techniques: A coral reef monitoring workshop. Proceedings of the Hawai'i Coral Reef Monitoring Workshop, Dept. of Land and Natural Resources, Honolulu, HI.
- Harding, K. 2017. DAR Recreational Aquarium Permittee Survey. October 2017.
- Hawai'i Department of Land and Natural Resources. 2015. Hawai'i's State Wildlife Action Plan. Prepared by H. T. Harvey and Associates, Honolulu, Hawai'i. 1,055pp.
- Hawai'i Department of Land and Natural Resources (DLNR). 2018. Species of Greatest Conservation Need. Available at: <http://dlnr.hawaii.gov/wildlife/hswap/cwcs/hawaii/species/>. Accessed on January 22, 2018.

Literature Cited

- Hawai'i Department of Business, Economic Development & Tourism (HDBEDT). 2016. Residential Home Sales in Hawai'i; Trends and Characteristics: 2008-2015. Available at: http://files.hawaii.gov/dbedt/economic/data_reports/homesale/Residential_Home_Sales_in_Hawaii_May2016.pdf. Accessed on May 10, 2018.
- HDBEDT. 2017. Latest Population Estimate Data. Available at: <http://census.hawaii.gov/home/population-estimate/>. Accessed January 29, 2018.
- Hawai'i Department of Agriculture (HDA). 2013. How Important is Agriculture Today? Available at: <http://hdoa.hawaii.gov/blog/ag-resources/how-important-is-agriculture-today/>. Accessed on January 29, 2018.
- Hawai'i, The State of. 2010. Hawai'i Coral Reef Strategy: Priorities for Management in the Main Hawaiian Islands 2010-2020. Honolulu, HI.
- Heenan A, Williams ID, Acoba T, DesRochers A, Kosaki RK, Kanemura T, Nadon MO, and Brainard RE. 2017. Long-term monitoring of coral reef fish assemblages in the western Central Pacific. *Scientific Data*. 4:170-176.
- Hoover, John P. 2008. *Ultimate Guide to Hawaiian Reef Fishes*. Mutual Publishing. Description available at: <http://eol.org/pages/212559/details>.
- International Union for Conservation of Nature (IUCN). 2017. Fish ecology and status. Available at: <http://www.iucnredlist.org/>. Accessed on February 8, 2018.
- Jokiel, P. L., K.S. Rogers, W.J. Walsh, D.A. Polhemus, and T.A. Wilhelm. 2011. Marine resource management in the Hawaiian Archipelago: The traditional Hawaiian system in relation to the western approach. *Journal of Marine Biology*. Article ID 151682.
- Kane, C.N. and B.N. Tissot. 2017. Trophic designation and live coral cover predict changes in reef-fish community structure along a shallow to mesophotic gradient in Hawaii. *Coral Reefs*. 36(3): 891-901. <https://doi.org/10.1007/s00338-017-1581-x>.
- Kramer, K.L., S.P. Cotton, M.R. Lamson, W.J. Walsh. 2016. Bleaching and catastrophic mortality of reef-building corals along west Hawai'i island: findings and future directions. *Proceedings of the 13th International Coral Reef Symposium, Honolulu*: 229-241.
- Kuiter, R.H. and T. Tonzuka, 2001. Pictorial guide to Indonesian reef fishes. Part 3. Jawfishes - Sunfishes, Opistognathidae - Molidae. *Zoonetics, Australia*. p. 623-893. Description provided at: <http://www.fishbase.org/references/FBRefSummary.php?ID=48637>.
- Lieske, E. and R. Myers, 1994. *Collins Pocket Guide. Coral reef fishes. Indo-Pacific & Caribbean including the Red Sea*. Haper Collins Publishers, 400 p. Description provided at: <http://www.fishbase.org/References/FBRefSummary.php?id=9710>.

Literature Cited

- Lobel, P. S. 2003. Reef Fish Courtship and Mating Sounds: unique signals for acoustic monitoring. Listening to Fish: Proceedings of the International Workshop on the Applications of Passive Acoustics to Fisheries. MIT SeaGrant publication, Cambridge, MA.
- Loke, M., C. Geslani, B. Takenaka and P.S. Leung. 2012. An overview of seafood consumption and supply sources: Hawai'i versus U.S. CTAHR, University of Hawai'i at Mānoa Economic Issues EI-22. 9 pp.
- Maly, K and O Maly. 2003. Volume 1: KA HANA LAWAI'A A ME NA Ko'A O NA KAI 'EWALU: A History of Fishing Practices and Marine Fisheries of the Hawaiian Islands vi, 113-115 (2003).
- Marine Resources Council (MRC). 2017. Maui Coral Reef Ecology. Available at: <https://www.mauireefs.org/maui-coral-reef-ecology/>. Accessed on January 22, 2018.
- McCoy, K.S., I.D. Williams, A.M Friedlander, H. Ma, L. Teneva, J.N. Kittinger. 2018. Estimating nearshore coral reef-associated fisheries production from the main Hawaiian Islands. PLoS ONE 13(4): e0195840. <https://doi.org/10.1371/journal.pone.0195840>.
- Mitchell, C., C. Ogura, D.W. Meadows, A. Kane, L. Strommer, S. Fretz, D. Leonard, and A. McClung. October 2005. Hawai'i's Comprehensive Wildlife Conservation Strategy. Department of Land and Natural Resources. Honolulu, Hawai'i. 722 pp.
- Miyasaka, A. 1994. Status report, aquarium fish collections, fiscal year 1993–1994. Division of Aquatic Resources, Department of Land and Natural Resources, Honolulu. Mundy, B.C., 2005. Checklist of the fishes of the Hawaiian Archipelago. Bishop Mus. Bull. Zool. (6):1-704. As cited in Walsh 2003.
- Myers, R.F. 1991. Micronesian reef fishes. Second Ed. Coral Graphics, Barrigada, Guam. 298pp. Description provided at: <http://www.fishbase.org/References/FBRefSummary.php?id=1602>.
- Myers, R.F. 1999. Micronesian reef fishes: a comprehensive guide to the coral reef fishes of Micronesia, 3rd revised and expanded edition. Coral Graphics, Barrigada, Guam. 330pp.
- National Oceanic and Atmospheric Administration (NOAA) Program Planning and Integration. 2013. Programmatic Environmental Assessment for the NOAA Marine Debris Program. Silver Spring, MD: National Oceanic and Atmospheric Administration Marine Debris Program. 179pp.
- NOAA. Marine Debris Program (2015). Marine Debris Program Strategic Plan 2016-2020. 8pp.
- NOAA. Marine Debris Program (2016). 2016 Hawai'i Marine Debris Action Plan. Silver Spring, MD: National Oceanic and Atmospheric Administration Marine Debris Program.
- NOAA, Office for Coastal Management. 2017. NOAA Report on the U.S. Ocean and Great Lakes Economy: Regional and State Profiles. Charleston, SC: Office for Coastal Management. Available at: coast.noaa.gov. Accessed on May 7, 2018.
- Ochavillo, D. and G. Hodgson. 2006. MAQTRAC marine aquarium trade coral reef monitoring protocol data analysis and interpretation manual. Reef Check Foundation. California, USA. 39 pp.

Literature Cited

- Office of Environmental Quality Control (OEQC). 2012. Guide to the Implementation and Practice of the Hawai'i Environmental Policy Act. State of Hawai'i. 96pp.
- Price, S. 1983. Climate, in *Armstrong, R. W. (ed.)*, Atlas of Hawai'i, 2nd ed., Univ. Hawai'i Press., Honolulu, HI, pp. 59-63.
- Pyle, R. 2001. *Chaetodontidae*. Butterflyfishes. In: K.E. Carpenter and V.H. Niem (eds), FAO species identification guide for fishery purposes. The living marine resources of the Western Central Pacific. Volume 5. Bony fishes part 3 (Menidae to Pomacentridae), pp. 3224-3265. FAO, Rome.
- Pyle, R. & Myers, R. 2010. *Centropyge fisheri*. The IUCN Red List of Threatened Species 2010: e.T165828A6142661. <http://dx.doi.org/10.2305/IUCN.UK.2010-4.RLTS.T165828A6142661.en>. Accessed on 01 February 2018.
- Rahayu, D.L. 2000. Hermit crabs from the South China Sea (*Crustacea: Decapoda: Anomura: Diogenidae, Paguridae, Parapaguridae*). The Raffles Bulletin of Zoology 8:377-404.
- Randall, J.E. 1956. A revision of the surgeonfish genus *Acanthurus*. Pac. Sci. 10(2):159-235.
- Randall, J.E. 1985. Guide to Hawaiian reef fishes. Harwood Books, Newtown Square, PA 19073, USA. 74 p.
- Randall, J.E. 1986. Cirrhitidae. p. 664-666. In M.M. Smith and P.C. Heemstra (eds.) Smiths' sea fishes. Springer-Verlag, Berlin.
- Randall, J. 1987. Introductions of Marine Fishes to the Hawaiian Islands. Bulletin of Marine Science 41(2): 490-502.
- Randall, J.E. 2002. Acanthuridae. Surgeonfishes. In: K.E. Carpenter (ed.), The living marine resources of the Western Central Atlantic. Bony fishes part 2 (Opistognathidae to Molidae), sea turtles and marine mammals, pp. 1801-1805. FAO, Rome
- Randall J.E. 2007. Reef and shore fishes of the Hawaiian Islands. University of Hawai'i Sea Grant College Program, Honolulu. 560pp.
- Randall, J.E and Clements, K.D. 2001. Second revision of the surgeonfish genus *Ctenochaetus* (Perciformes: Acanthuridae), with descriptions of two new species. Indo-Pacific Fishes 32: 33.
- Randall, J.E., G.R. Allen and R.C. Steene. 1990. Fishes of the Great Barrier Reef and Coral Sea. University of Hawai'i Press, Honolulu, Hawai'i. 506 p.
- Reef Environmental Education Foundation (REEF). 2008. Exotic species sighting program and volunteer database. Available at: www.reef.org. Accessed on January 22, 2018.
- Reeson, P.H. 1983. The biology, ecology, and bionomics of the surgeonfishes, Acanthuridae. In: J.L. Munro (ed.), Caribbean coral reef fishery resources, pp. 178-190. Description available at: <http://www.fishbase.org/References/FBRefSummary.php?id=3194>.

Literature Cited

- Sazima, I., C. Sazima and J.M. Silva Jr., 2003. The cetacean offal connection: feces and vomits of spinner dolphins as a food source for reef fishes. *Bull. Mar. Sci.* 72(1):151-160.
- Stevenson, T.C., B.N. Tissot, and J. Dierking. 2011. Fisher behavior influences catch productivity and selectivity in West Hawai'i's aquarium fishery. *ICES J. Mar. Sci.* 68, 813–822.
- Stevenson, T.C., B.N. Tissot, and W.J. Walsh. 2013. Socioeconomic consequences of fishing displacement from marine protected areas in Hawai'i. *Biological Conservation*. 160:50-58.
- Thresher R.E. 1984. *Reproduction in Reef Fishes*. TFH Publications, Inc. Neptune City, New Jersey. 399pp. Hardcopy available at Stantec.
- Tissot, B.N. 1999. Adaptive management of aquarium fish collecting in Hawai'i. *SPC Live Reef Fish Information Bulletin #6*. Pp 16-19.
- Tissot, B.N. and L.E. Hallacher. 2003. Effects of aquarium collectors on coral reef fishes in Kona, Hawai'i. *Conservation Biology* 17 (6):1759-1768.
- Tissot, B.N., W.J. Walsh and L.E. Hallacher. 2004. Evaluating effectiveness of a marine protected area network in West Hawai'i to increase productivity of an aquarium fishery. *Pacific Science*. 58(2):175–188.
- Toonen, R.J., K. R. Andrews, I. B. Baums, C. E. Bird, G.T. Concepcion, T.S. Daly-Engel, J.A. Eble, A. Faucci, M.R. Gaither, M. Iacchei, J. B. Puritz, J.K. Schultz, D.J. Skillings, M.A. Timmers and B.W. Bowen. 2011. Defining Boundaries for Ecosystem-Based Management: A Multispecies Case Study of Marine Connectivity across the Hawaiian Archipelago. *Journal of Marine Biology*, Volume 2011, Article ID 460173, 13 pg. doi:10.1155/2011/460173.
- U.S. Coast Guard (USCG). 2016. 2016 Recreational Boating Statistics. U.S Department of Homeland Security; U.S. Coast Guard Office of Auxiliary; and Boating Safety. Washington D.C. 83pp.
- University of Hawai'i, Waikiki Aquarium. 2016. Potter's Angelfish. Available at: <http://www.waikikiaquarium.org/experience/animal-guide/fishes/angelfishes/potters-angelfish/>. Accessed on 3 January 2018.
- University of Hawai'i. 2017. Coral Bleaching Recovery Plan: Identifying Management Responses to Promote Coral Recovery in Hawai'i. 47pp.
- Walsh, W.J., Cotton S.P., Dierking, J., and I.D. Williams. 2003. The Commercial Marine Aquarium Fishery in Hawai'i 1976-2003. In: Friedlander A.M. (ed.) *Status of Hawai'i's Coastal Fisheries in the New Millennium*. Proceedings of a Symposium sponsored by the American Fisheries Society, Hawai'i Chapter. pp. 132-159.
- Walsh, W., Cotton, S., Carman, B., Livnat, L., Osada, K., Barnett, C., Tissot, B., Stevenson, T., Wiggins, C., Tarnas, D., Bourdon, K. and Peck, S. 2010. Report on the Findings and Recommendations of Effectiveness of the West Hawai'i Regional Fishery Management Area. Department of Land and Natural Resources State of Hawai'i, State of Hawai'i.

Literature Cited

- Walsh, W.J., S. Cotton, C. Barnett, C. Couch, L. Preskitt, B. Tissot, K. Osada-D'Avella. 2013. 2009 NOAA Coral Reef Conservation Program; Hawai'i Island Monitoring Report 10/01/2009-12/31/2012. 97pp.
- Western Pacific Regional Fishery Management Council (WPRFMC). 2005. Essential Fish Habitat Descriptions for Western Pacific Archipelagic and Remote Island Areas Fishery Ecosystem Plan Management Unit Species (Crustacean, Bottomfish, Precious Coral, Coral Reef Ecosystem). Appendix A. Available at: <http://www.wpcouncil.org/wp-content/uploads/2013/03/Appendix-Demersal-FEP-EFH-descriptions-FINAL.pdf>. Accessed on May 14, 2018.
- WPRFMC. 2017. Hawaiian Archipelago. Available at: <http://www.wpcouncil.org/managed-fishery-ecosystems/hawaii-archipelago/>. Accessed on February 5, 2018.
- Work, TM; Aeby, GS. 2014. Skin pathology in Hawaiian goldring surgeonfish, *Ctenochaetus strigosus* (Bennett). J. Fish Dis. 37: 357–62.

APPENDIX A

Independent Reviewer Comments

Dr. Brian Bowen, Researcher
Hawai'i Institute of Marine Biology, University of Hawai'i at Mānoa

From: Brian Bowen [mailto:bbowen@hawaii.edu]
Sent: Thursday, March 08, 2018 7:42 PM
To: Lynch, James M.
Subject: Re: Hawaii AQ Fishery

Jim:

Attached my comments/suggestions on the draft Hawaii EA. My suggested changes are on pages 7,23,33,37,40,41,43-46,52,55, 94, plus references. I added two references to further document life history.

None of these changes are pertinent to the science, just matters of presentation.

I find the conclusions about the preferred alternative to be supported by the best available science, and don't know of any science that was omitted or overlooked. It is an impressive document.

Yes, you can use my comments publicly. Thank you for doing this.

Brian

March 2018

CURRICULUM VITAE
BRIAN WILLIAM BOWEN

Title Research Professor
Address Hawaii Institute of Marine Biology e-mail: bbowen@hawaii.edu
University of Hawaii office: 808-236-7426
P.O. Box 1346 lab: 808-236-7471
Kaneohe, HI 96744 cell: 808-284-9642

Web Sites

http://www2.hawaii.edu/~toonon/ToBo_Website/Home.html
<http://hawaii.academia.edu/BrianBowen>
<http://youtu.be/R-K--7RdZVk>
Facebook: <https://www.facebook.com/ToBoLab>

Birthdate May 18, 1957

Education 1980 Bachelor of Science, Biology, Providence College
Advisor: Dr. Eugene Donahue
1987 Master of Science, Marine Biology, College of William and Mary
Advisor: Dr. John A. Musick
1992 Doctor of Philosophy, Genetics, University of Georgia
Advisor: Dr. John C. Avise

Thesis Titles

Bowen, B.W. 1987. Population structure of the white perch, *Morone americana*, in lower Chesapeake Bay. M.A. thesis, College of William and Mary, Williamsburg VA.
Bowen, B.W. 1992. Evolutionary genetics and natural history of marine turtles. Ph.D. dissertation, Univ. of Georgia, Athens.

Professional Experience

1975-present Advanced scuba, rescue diver, nitrox diver
1981 Appalachian Trail, walked 2140 miles from Georgia to Maine
1983-85 Marine Turtle Stranding Network, Virginia
1984 Groundfish Survey, National Marine Fisheries Service
1984-85 Chesapeake Bay Monthly Trawl Surveys
1986-2000 12 international expeditions to collect specimens of sea turtles
1992-97 Established and directed the Conservation Genetics Core in the Biotechnology Program at University of Florida
1994 Organized a conservation genetics workshop for biologists from developing nations (February 1994), funded by the U.S. Agency for International Development and the National Science Foundation.
1994 Organized a colloquium, Phylogeography of the Testudines, for the annual meeting of the Society for Study of Amphibians and Reptiles
1994-96 National Science Foundation Panelist: Conservation and Restoration Biology
1995 Organized and convened the International Symposium on Conservation

- Genetics of Marine Turtles, with W.W. Witzell (September 1995)
- 1996 Workshop on Endangerment and Extinction in the Sea, organized by Elliot Norse, Center for Marine Conservation, Washington D.C.
- 1997-2002 Assistant Professor, Dept. of Fisheries and Aquatic Sciences, Univ. of Florida
- 1997-2011 Lecturer in short course organized by Stephen O'Brien: Recent Advances in Conservation Genetics, NIH/Smithsonian/Natl. Zoo
- 1998 New graduate course: Marine Phylogeography
- 1999 National Science Foundation Panelist: Biological Oceanography
- 1999 Marine Mammal Molecular I.D. Workshop, La Jolla, CA (June)
- 2000 Organized a colloquium, Taxonomic Status of the Black Turtle, for the annual meeting Sea Turtle Biology and Conservation, Orlando, FL
- 2000-2002 Annual expeditions to Bahamas to survey reef organisms, using the Florida research vessels Suncoaster and Bellows (with S.A. Karl)
- 2003 – 2006 Assistant research professor, Hawaii Institute of Marine Biology, Univ. of Hawaii
- 2003 - present International expeditions to collect reef fishes at Christmas Island (Pacific Ocean), American Samoa, Okinawa, Marshall Islands, Johnston Atoll, Palau, Cocos/Keeling, Christmas Island (Indian Ocean), French Polynesia, Chagos, Saudi Arabia, Cook Islands, Djibouti, Philippines, and elsewhere
- 2005 – 2010 Three domestic expeditions (24 – 30 days) as chief HIMB scientist on the NOAA research vessel Hiialakai, to conduct scuba sampling in the Northwest Hawaiian Islands (Papahānaumokuākea Marine National Monument)
- 2006 – 2010 Associate Research Professor, Hawaii Institute of Marine Biology, Univ. of Hawaii.
- 2007 Hosted and organized the short course with Stephen O'Brien: Recent Advances in Conservation Genetics, Jan. 7-20, 2007.
- 2007-2016 Chair, HIMB Departmental Personnel Committee
- 2008 Mesophotic Reef Research Priorities Workshop, Jupiter Beach, FL (July)
- 2008 IUCN Marine Turtle Specialist Group, Burning Issues, Shepherdstown, West Virginia (August)
- 2008 – 2010 Training on the Silent Diving "Evolution" closed-circuit rebreather, to facilitate deep reef exploration
- 2009 Convened symposium *Phylogeography of Reef Fishes* with Luiz Rocha at the 8th Indo-Pacific Fish Conference, Fremantle, Australia (June)
- 2010 - present Research Professor, Hawaii Institute of Marine Biology, Univ. of Hawaii
- 2016 National Science Foundation Panelist: Graduate Research Fellowship Program (Evolution and Systematics)
- 2016 Organizer: National Academy of Sciences Sackler Colloquia: *In Light of Evolution X: Comparative Phylogeography* (January 8-9), with Francisco Ayala and John Avise

Awards

1990	American Society of Ichthyologists and Herpetologists, Stoye Award for best student paper in herpetology
1991	Annual Marine Turtle Symposium, award for best student paper
1992	University of Georgia, Charles C. Anderson Memorial Award for research excellence in a dissertation thesis
1996	Fellow, American Association for the Advancement of Science
2015	Kobe Award (Japan) for lifetime achievement in aquatic biology
2016	University of Hawaii Board of Regents Excellence in Research Award

Graduate Students and Post-Doctoral ResearchersM.S. Program

Joseph Roman (1998), Jeff Colborn (1999), Andrew Muss (1999), Ellen Waldrop (2014),
Anna Pauliina Ahti (2014), Richard Coleman (2014), Garrett Johnson (2016)

Ph.D. Program

Angelica Garcia-Rodriguez (2000), Luiz Rocha (2003 w/Debra Murie), Jennifer Schultz
(2009), Toby Daly-Engel (2009 w/Kim Holland), Jeff Eble (2010), Timothy Clark (2010 w/Kim
Holland), Michelle Gaither (2011), Craig Musburger (2012 w/Kim Holland), Christie Wilcox
(2014), Joshua Copus (current), Richard Coleman (current), Sean Canfield (current), Michael
Hoban (current), Cassie Ka'apu-Lyons (current), Derek Kraft (current), Keith Kamikawa
(current), Charley Westbrook (current)

Post-Doctoral Program

Matthew Craig (2005 - 2009)
Luiz Rocha (2006 - 2008)
Joseph DiBattista (2009 - 2012)
Kim Andrews (2010 - 2012)
Iria Fernandez Silva (2010 - 2013)
Jean-Paul Hobbs (2014 - 2015)

Professional Societies

American Genetics Association
International Biogeography Society
International Society for Reef Studies
Society for the Study of Evolution
American Academy of Underwater Sciences

Professional Affiliations

Graduate Faculty, Marine Biology Graduate Program, Univ. of Hawaii
Graduate Faculty, Dept. of Cell and Molecular Biology, Univ. of Hawaii
Graduate Faculty, Dept. of Biology, Univ. of Hawaii
Graduate Faculty, Ecology, Evolution, and Conservation Biology Program (EECB),
Univ. of Hawaii

Advisory Positions

1994 - present	IUCN Species Survival Commission, Marine Turtle Specialist
1994-2000	Conservation Committee, Soc. Study of Amphibians and Reptiles
1998-2010	Fundacao Pro-TAMAR (Brazil) Ad-Hoc Consultants Committee
2000-2002	Lab for Conservation Genetics, Max Planck Inst., Scientific advisor
2001-2002	Steering Committee, North Atlantic Biogeography Project
2005 - 2016	Reserve Advisory Council, NW Hawaiian Islands Marine Sanctuary
2006-2012	Science and Statistics Committee, Western Pacific Regional Fishery Management Council
2006-2008	Research Council, UH School of Oceanography (SOEST)
2009-2010	National Research Council, Committee on the Review of Sea Turtle Population Assessment Methods
2010 - present	International Steering Committee, Indo-Pacific Fish Conference
2010 - present	Genome 10K Project Associate
2011 - present	EECB Grants Committee (internal grants at UH)

2011	NOAA PIFSC External Program Review – Sea Turtles
2012 – 2013	University of Hawaii Diving Control Board
2013 – present	Chair, University of Hawaii Diving Control Board
2014 - present	UH Marine Biology Graduate Program, curriculum committee
2016 – 2017	UH Biology Department, graduate instruction committee
2016 – 2017	Chair, marine mammal faculty search committee
2017 – present	UH Biology Department, graduate admissions committee

Editorial Positions

1993-1999	<i>Genetica</i> , Associate Editor
1996-2004	<i>Herpetological Review</i> , Associate Editor
1998-2000	<i>Evolution</i> , Associate Editor
2000-2012	<i>Molecular Ecology</i> , Editorial Review Board
2003-2013	<i>Journal of Heredity</i> , Associate Editor

Invited Presentations (includes 39 international presentations in 22 nations and territories)

1990	U.S Air Force Base, Ascension Island, U.K.
1991	Southwest Fisheries Science Center, La Jolla CA
1992	Archie Carr Center for Sea Turtle Research, University of Florida National Marine Fisheries Service, Charleston Lab, Charleston SC Hopkins Marine Lab, Stanford University, Pacific Grove CA CINVESTAV Graduate Research Institute, Merida, Yucatan, Mexico
1993	Drexel University, Philadelphia PA University of Central Florida, Orlando FL Louisiana State University, Baton Rouge LA Annual Interuniversity Congress on Marine Turtles, Mazatlan, Mexico
1994	Second World Congress of Herpetology, Adelaide, Australia Society for the Study of Evolution, annual meeting, Athens GA Symposium on Molecular Genetics of Marine Mammals, La Jolla CA
1995	American Assn. for Advancement of Science, annual meeting, Atlanta GA University of Vermont, Burlington VT Society for Study of Amphibians and Reptiles, annual meeting, Boone NC
1996	Western Society of Naturalists, annual meeting, Seattle WA Crocodilian DNA Workshop, Univ. of South Carolina, Columbia SC Florida Academy of Sciences, annual meeting, Melbourne FL University of California, Santa Cruz CA American Genetics Association, annual meeting, Athens GA University of South Florida, St. Petersburg, FL Atwood Memorial Lecture, University of Toronto, Ontario, Canada Dickinson Memorial Lecture, University of Richmond, Richmond, VA
1997	National Shellfish Association, annual meeting, Gulf Coast FL Gulf Coast Research Lab, Ocean Springs, MS Florida Wildlife Rehabilitators Association, Live Oak, FL Southampton University, Long Island, NY
1998	Annual Symposium on Sea Turtle Biology and Conservation, Mazatlan, Mexico, Keynote address Society for Study of Amphibian and Reptiles, annual meeting, Guelph, Canada Universidade Federal da Paraíba, João Pessoa, Brazil TAMAR Sea Turtle Station, Isla Fernando de Noronha, Brazil Duke University, Durham, NC Ninth Annual Meeting of the Japanese Sea Turtle Society, Yagushima, Japan, Keynote address
1999	University of South Florida, Tampa, FL Universite Laval, Quebec City, Canada Marine Mammal Molecular Identification Workshop, La Jolla, CA International Seminar on the Biology and Conservation of Sea Turtles, Santa Marta, Colombia Centre d'Etude et de Decouverte des Tortue Marines, Reunion Is., French Indian Ocean Territory

- 2000 University of South Carolina, Columbia, SC
Sea Turtle Biology and Conservation, annual meeting, Orlando, FL
Whitney Marine Lab, Volusia, FL
College of Veterinary Medicine, Univ. of Florida
Society for Conservation Biology, annual meeting, Missoula, MT
College of Charleston, Charleston SC
- 2001 Wheaton College, Norton, MA
Whitney Marine Lab, Volusia, FL
Keynote address, FECS 9th Annual Meeting, Ordway, FL
University of South Carolina, Columbia, SC
University of New Orleans, LA
- 2002 Montana State University, Missoula, MT
McGill University, Montreal, Quebec, Canada
Univ. of Southern California, Los Angeles, CA
Univ. of Hawaii, Honolulu, HI
National Conservation Training Center, Shepherdstown, WV
Florida Atlantic University, Boca Raton, FL
- 2003 Annual Hawaii Conservation Conference, Honolulu, HI
International Biogeography Society, inaugural meeting, Mesquite, NV
Dept. of Zoology, University of Hawaii, Manoa HI
- 2004 International Coral Reef Symposium, Okinawa, Japan
Dept. of Biology, University of Hawaii, Hilo HI
American Samoa Community College, Pago, Pago, Am. Samoa
- 2005 Smithsonian Tropical Research Institute, Bocas del Toro, Panama
- 2006 Hanauma Bay Nature Reserve, Hawaii
- 2007 Sea of Islands Forum, Honolulu, Hawaii
- 2008 Air Force Command, Diego Garcia, British Indian Ocean Territory
Hopkins Marine Station, Stanford University
Pelagic Fisheries Research Program, SOEST, Honolulu
EECB Program, University of Hawaii
- 2009 Smithsonian Tropical Research Institute, Gamboa, Panama
Eighth Indo-Pacific Fish Conference, Fremantle, Australia:
Phylogeography of Indo-Pacific Reef Fishes (Symposium Organizer)
Pacific Science Intercongress, Tahiti, **Keynote Address**
Western Pacific Regional Fisheries Management Council
- 2010 Conservation Genetics Course, White Oak Plantation, Florida
International Sea Turtle Society, Goa, India, **Keynote Address**
Association for Tropical Biology and Conservation, Bali, Indonesia
American Genetics Association, Hilo, HI
- 2011 King Abdullah University of Science and Technology, Saudi Arabia
Evolution of Life on Pacific Islands and Reefs, Honolulu, HI
22nd Pacific Science Congress, Kuala Lumpur, Malaysia
Conservation Genetics Course, Aquidauana, Pantanal, Brazil
Google Managers Retreat, Princeville, Kauai, HI
International Congress of Conservation Biology, Auckland NZ
- 2012 Smithsonian Tropical Research Institute, Gamboa, Panama
National Center for Evolutionary Synthesis, Duke Univ., Durham NC
University of the South Pacific, Cook Islands
Smithsonian Journeys/Celebrity Cruise Line speaker, Bermuda
King Abdullah University of Science and Technology, Saudi Arabia
- 2013 Oceanographic Center, Nova Southeastern University, FL
University of the Ryukyus, Japan
Ninth Indo-Pacific Fish Conference, Okinawa, Japan
Gordon Research Conference on Marine Molecular Ecology, Hong Kong
Ocean University of China, Qindao, China
Oceanographic Institute, Chinese Academy of Sciences, China
Hawaii Pacific University, Kailua, HI
Bureau of Fisheries and Aquatic Resources, Quezon, Philippines
- 2014 King Abdullah University of Science and Technology, Saudi Arabia
Texas A&M University, College Station Campus, **Plenary Speaker**
Texas A&M University, Corpus Christi Campus

- Smithsonian Botanical Symposium on Biogeography, Washington D.C.
University of California, Santa Cruz CA
- 2015 Atmosphere and Ocean Research Institute, Univ. Tokyo, Japan (March)
Suma Aqualife Park, Kobe, Japan (May 23)
Hotel Okura, Kobe, Japan (Ceremony to accept Kobe Award, May 24)
- 2016 University of California, Irvine CA
- 2017 University of Tokyo/University of Hawaii Joint Symposium on Ocean,
Coastal, and Atmospheric Science, Honolulu
University of Ryukyus, Okinawa, Japan

ELECTRONIC MEDIA

On Lionfish Invasion

<https://www.hakaimagazine.com/article-short/invasive-lionfish-may-be-superfish-hybrids>

<https://blog.oup.com/2017/10/lionfish-perfect-invader/>

Think-Tech on population genetics with Rob Toonen

<https://www.youtube.com/watch?v=idwR098oOaE>

On the colonization of Hawaii

Voice of the Sea VOS4-12 The Kiritimati to Hawai'i Connection

<https://vimeo.com/237805099> or <https://youtu.be/4jPITfQIFcM>

Voice of the Sea VOS5-3 Fish Origins Revealed in DNA

<https://vimeo.com/257572127> or <https://youtu.be/7n13RLwV58g>

BOOKS

- Bowen, B.W. and W.N. Witzell (eds.) 1996. Proceedings of the International Symposium on Sea Turtle Conservation Genetics. NOAA Tech. Memo. NMFS-SEFSC-396. Silver Spring, MD
- Helfman, G.S., B.B. Collette, D.E. Facey, B.W. Bowen. 2009. The Diversity of Fishes, Second Edition. Wiley-Blackwell, Oxford, UK
- National Research Council. 2010. Sea Turtle Status and Trends: Integrating Demography and Abundance. National Academies Press, Washington, D.C. *Authors:* K.A. Bjorndal (*chair*), B.W. Bowen, M. Chaloupka, L.B. Crowder, S.S. Heppell, C.M. Jones, M.E. Lutcavage, D. Policansky, A.R. Solow, B.E. Witherington.

CHAPTERS

- Bowen, B.W. 1995. Molecular genetic studies of marine turtles. Pp. 585-588 *In* Biology and Conservation of Sea Turtles, Second Edition, K. Bjorndal (ed.) Smithsonian Institution Press, Washington, D.C.
- Bowen, B.W. and J.C. Avise. 1995. Conservation genetics of marine turtles. Pp. 190-237 *In* Conservation Genetics: Case Histories from Nature, J.C. Avise and J.L. Hamrick (eds). Chapman and Hall, NY.
- Bowen, B.W. and S.A. Karl. 1996. Population structure, phylogeography, and molecular evolution. Pp. 29-50 *In* The Biology of Sea Turtles, P.L. Lutz and J.A. Musick (eds.), CRC Press, Boca Raton, FL
- Bowen, B.W. 1997. Complex population structure and the conservation genetics of migratory marine mammals: lessons from sea turtles. *In* Molecular Genetics of Marine Mammals, A.E. Dizon, S.J. Chivers, and W.F. Perrin (eds.), J. Marine Mammalogy, Special Publication 3:77-84.
- FitzSimmons, N.N., B.W. Bowen, and C. Moritz. 1999. Population identification. Pp. 72-79 *In* K. Eckert, K.A. Bjorndal, A. Abreu-Grobois (eds.) Research and Management Techniques for the Conservation of Marine Turtles. IUCN/SSC Marine Turtle Specialist Group Publication No. 4.
- Bowen, B.W. 2003. What is a loggerhead turtle? The genetic perspective. Pp. 7 – 27 *In* A.B. Bolten and B. Witherington (eds.) The Biology of Loggerhead Sea Turtles. Smithsonian Institution Press, Washington, D.C.
- Briggs, J.C., B.W. Bowen and M.A. Rex. 2004. Introduction to Biogeography of the Sea. Pp. 233-237 *In* Lomolino and Brown (eds.) Frontiers in Biogeography. Sinauer Assoc., Sunderland MA.
- Friedlander, A., J. Caselle, J. Beets, C. Lowe, B.W. Bowen, T. Ogawa, K. Kelly, T. Calitri, M. Lange, and B. Anderson. 2007. Biology and ecology of the recreational bonefish fishery at Palmyra

- Atoll National Wildlife Refuge with comparisons to other Pacific Islands. Pp. 28-56 *In* J.S. Ault (ed.) *Biology and Management of the World Tarpon and Bonefish Fisheries*. CRC Press, Boca Raton, FL
- Bowen, B.W., S.A. Karl, and E. Pfeiler. 2007. Resolving evolutionary lineages and taxonomy of bonefishes (*Albula* spp.). Pp. 147-154 *In* J.S. Ault (ed.) *Biology and Management of the World Tarpon and Bonefish Fisheries*. CRC Press, Boca Raton, FL
- Sheppard, C.R.C., B.W. Bowen, C.A. Chen, M.T. Craig, J.A. Eble, N.N. Fitzsimmons, C.-H. Gan, M.R. Gaither, M. Gollock, S. Keshavmurthy, H. Koldewey, J.A. Mortimer, D. Obura, M. Pfeiffer, A.D. Rogers, A.L.S. Sheppard, C. Vogler, G. Worheide, M.-C. Yang, C. Yesson. 2013. British Indian Ocean Territory (the Chagos Archipelago): Setting, Connections and the Marine Protected Area. Pp. 223 – 240 *In* C.R.C. Sheppard (ed.) *Coral Reefs of the United Kingdom Overseas Territories*, Springer Netherlands.
- Eble, J.A., B.W. Bowen, G. Bernardi. 2015. Phylogeography of coral reef fishes. Pp. 64 – 75 *In* C. Mora (ed.) *Ecology of Fishes on Coral Reefs*. University of Hawaii Press, Honolulu
- Toonen, R.J., B.W. Bowen, M. Iacchei, J.C. Briggs. 2016. Marine Biogeography. *In* R.M. Kliman (ed.) *The Encyclopedia of Evolutionary Biology*. Pp. 166 – 178. Oxford: Academic Press
- Bowen, BW, Gaither MR, DiBattista JD, Iacchei M, Andrews KR, Grant WS, Toonen RJ, Briggs JC. 2017. Comparative phylogeography of the ocean planet. Pp. 5 – 21 *In* Avise JC, Ayala FJ, Eds. *In the Light of Evolution, Volume X: Comparative Phylogeography*. Washington, DC: The National Academies Press. doi: 10.17226/23542.
- Spalding, H.L., J.M. Copus, R.K. Kosaki, K. Longenecker, A.D. Montgomery, J.L. Padillo-Gamino, F.A. Parrish, M.S. Roth, S.J. Rowley, B.W. Bowen, R.J. Toonen, R.L. Pyle. Hawaiian Archipelago. *In* Puglise K (ed.) *Mesophotic Coral Ecosystems*. Springer, New York *In review*
- Hixon, M.A., B.W. Bowen. Marine Fishes. *In* Maclean N (ed.) *The Living Planet: The Present Status of the World's Wildlife In prep*

ESSAYS, COMMENTARIES, AND POPULAR PUBLICATIONS

- Bowen, B.W. 1992. C.I.T.E.S and Scientists: Conservation in Conflict. *Marine Turtle Newsletter* 58:5-6.
- Bowen, B.W., J.C. Avise. 1994. Conservation research and the legal status of PCR products. *Science* 266:713.
- Bowen, B.W., J.C. Avise. 1994. Tracking turtles through time. *Natural History* 103(12):36-42.
- Bowen, B.W. 1996. Exploring the oceans with DNA sequences. Guest Essay *In* M.R. Cummings, *Biology: Science and Life*. West Publishing. p. 565.
- Bowen, B.W. 1996. Conservation genetics of crocodiles: lessons from marine turtles. Pp. 5-7 *In* J.M. Dantzler (ed.) *Crocodylian DNA Research: a report on a workshop on the genetics of the crocodilians*. Occasional Papers in Environmental Policy 96-1, Center for Environmental Policy, University of South Carolina, Columbia.
- Bowen, B.W. A.L. Bass. 1996. Are the naturalists dying off? *Conservation Biology* 10:923-924.
- Bowen, B.W., W.N. Witzell. 1996. Introduction: Sea turtle conservation genetics. *In* B.W. Bowen and W.N. Witzell (eds.) *Proceedings of the International Symposium on Sea Turtle Conservation Genetics*. NOAA Tech. Memo. NMFS-SEFSC-396.
- Bowen, B.W. 1996. Comparative phylogeography of green and loggerhead turtles. *In* B.W. Bowen and W.N. Witzell (eds.) *Proceedings of the International Symposium on Sea Turtle Conservation Genetics*. NOAA Tech. Memo. NMFS- SEFSC-396.
- Bowen, B.W., D. Crouse. 1997. Landscape-level management in the marine realm. Guest Essay *In* G.K. Meffe and C.R. Carroll, *Principles of Conservation Biology*, Second Edition.
- Bowen, B.W., A.L. Bass. 1997. Movement of hawksbill turtles: what scale is relevant to conservation, and what scale is resolvable with mtDNA data? *Chelonian Conservation and Biology* 2:440-442.
- Encalada, S. E., J.C. Zurita, B.W. Bowen. 1999. Genetic consequences of coastal development: the sea turtle rookeries at X'cacel, Mexico. *Marine Turtle Newsletter* 83:8-10.
- Bowen, B.W., S.A. Karl. 1999. In war, truth is the first casualty. *Conservation Biology* 13: 113-116.
- Bowen, B.W. 2000. A field born in conservation's cold war. *Trends in Ecology and Evolution* 15:1-3.
- Bowen, B.W., S.A. Karl. 2000. Meeting report: Taxonomic status of the East Pacific green turtle (*Chelonia agassizii*). *Marine Turtle Newsletter* 89:20-22.
- Bowen, B.W. 2001. Applications of molecular genetic markers for the conservation of marine turtles. Pp. 69 *In* *Connaissance et conservation des tortues marines du Sud-Ouest de l'Océan Indien* (S. Ciccione, D. roos, and J.-Y. Le Gall, eds.). Editions du Centre d'Etude et de Decouverte des Tortue Marines de la Reunion. Reunion Is., France (in French and English).
- Roman, J., B.W. Bowen. 2001. In search of the mock turtle. *New Scientist* 171(2307):28-31.

- Bowen, B.W. 2005. Alfred Russell Wallace Award Recipient: John C. Briggs. *International Biogeography Society Newsletter* 3(1): 5-6.
- Bowen, B.W., W.S. Grant, Z. Hillis-Starr, D. Shaver, K.A. Bjorndal, A.B. Bolten, A.L. Bass. 2007. The advocate and the scientist; Debating the commercial exploitation of endangered hawksbill turtles. *Molecular Ecology* 16:3514-3515.
- Bowen, B.W. 2007. Sexual harassment by a male green turtle (*Chelonia mydas*). *Marine Turtle Newsletter* 117:10.
- Friedlander, A., G. Aeby, S. Balwini, B. Bowen, R. Brainard, A. Clark, J. Kenyon, J. Maragos, C. Meyer, P. Vroom, J. Zamzow. 2008. The state of coral reef ecosystems of the Northwestern Hawaiian Islands. Pp. 263-306 In Waddell, J.E. and A.M. Clarke (eds.). *The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2008*. NOAA Technical Memorandum NOS NCCOS 73. NOAA/NCCOS Center for Coastal Monitoring and Assessment's Biogeography Team. Silver Spring, MD. 569 pp.
- Friedlander, A., J. Maragos, R. Brainard, A. Clark, G. Aeby, B. Bowen, E. Brown, K. Chaston, J. Kenyon, C. Meyer, P. McGowan, J. Miller, T. Montgomery, R. Schroeder, C. Smith, P. Vroom, W. Walsh, I. Williams, W. Wiltse, J. Zamzow. 2008. Status of coral reefs in Hawaii and United States Pacific Remote Island Areas (Baker, Howland, Palmyra, Kingman, Jarvis, Johnston, Wake). Pp. 213-224 In Wilkinson, C. (ed.) *Status of the Coral Reefs of the World: 2008*. Global Coral Reef Monitoring Network, Townsville, Australia. 298 pp.
- Bowen, B.W., B. Wallace. 2010. How sea turtles have weathered past climate changes. *SWOT (State of the world of sea turtles) Vol. V:13-15*.
- Toonen, R.J., C. Bird, J. Eble, A. Faucci, G. Concepcion, K. Andrews, D. Skillings, M. Iacchi, I. Baums, B.W. Bowen. 2010. Where have all the larvae gone? Patterns of connectivity in the Hawaiian Archipelago. *Proceedings of the American Academy of Underwater Sciences*, In: NW Pollock (ed). *Diving for Science 2010. Proceedings of the 29th American Academy of Underwater Sciences Symposium*. Dauphin Island, AL: AAUS.
- Bowen, B.W. 2010. Interview with John C. Briggs, recipient of the 2005 Alfred Russel Wallace Award. *Frontiers in Biogeography* 2(3):78 – 80.
- Donovan, M. K., I. D. Williams, A. M. Friedlander, K. Longnecker, J. P. Beets, B. W. Bowen, E. C. Franklin. 2011. *Catalog of Coral Reef Fish Life History Specimens for the Hawaiian Islands*. Pacific Islands Fish. Sci. Cent. Admin. Rep. H-11-05, 13 pp.
- Bowen, B.W. 2013. *Testudines erectus*: Beware the male sea turtle. *Asian Diver* 127(4):50 – 51.
- DiBattista, J.D., M.R. Gaither, J.-P.A. Hobbs, L.A. Rocha, B.W. Bowen. 2017. Response to Delrieu-Trottin et al.: Hybrids, color variants and the consistently devilish taxonomy of pygmy angelfishes. *Journal of Heredity* 108:337 – 339.

PEER-REVIEWED PUBLICATIONS

- Bowen, B.W., A. B. Meylan, J.C. Avise. 1989. An odyssey of the green sea turtle, *Chelonia mydas*: Ascension Island revisited. *Proc. Natl. Acad. Sci. USA* 86:573-576.
- Avise, J.C., B.W. Bowen, T. Lamb. 1989. DNA fingerprints from hypervariable mitochondrial genotypes. *Mol. Biol. Evol.* 6:258-269.
- Bowen, B.W., J.C. Avise. 1990. The genetic structure of Atlantic and Gulf of Mexico populations of sea bass, menhaden, and sturgeon: the influence of zoogeographic factors and life history patterns. *Marine Biology* 107:371-381.
- Meylan, A.B., B.W. Bowen, J.C. Avise. 1990. A genetic test of the natal homing versus social facilitation models for green turtle migration. *Science* 248:724-727.
- Bowen, B.W., A.B. Meylan, J.C. Avise. 1991. Evolutionary distinctiveness of the endangered Kemp's ridley. *Nature* 352:709-711.
- Avise, J.C., B.W. Bowen, E. Bermingham, A.B. Meylan, T. Lamb. 1992. Mitochondrial DNA evolution at a turtle's pace: evidence for low genetic variability and reduced microevolutionary rate in the Testudines. *Mol. Biol. Evol.* 9: 457-473.
- Bowen, B.W., A.B. Meylan, J.P. Ross, C.J. Limpus, G.H. Balazs, J.C. Avise. 1992. Global population structure and natural history of the green turtle (*Chelonia mydas*) in terms of matriarchal phylogeny. *Evolution* 46: 865-881.
- Karl, S.A., B.W. Bowen, J.C. Avise. 1992. Global population structure and male-mediated gene flow in the green turtle (*Chelonia mydas*): RFLP analysis of anonymous nuclear DNA regions. *Genetics* 131:163-173.
- Bowen, B.W., W.S. Nelson, J.C. Avise. 1993. A molecular phylogeny for marine turtles: trait mapping, rate assessment, and conservation relevance. *Proc. Natl. Acad. Sci. USA* 90: 5574-5577.

- Bowen, B.W., J.C. Avise, J.I. Richardson, A.B. Meylan, D. Margaritoulis, S. Hopkins-Murphy. 1993. Population structure of the loggerhead turtle (*Caretta caretta*) in the northwest Atlantic Ocean and Mediterranean Sea. *Conservation Biology* 7:834-844.
- Laurent, L., J. Lescure, L. Excoffier, B.W. Bowen, M. Domingo, M. Hadjichristophorou, L. Kornaraki, G. Trabuchet. 1993. Genetic relationships between Mediterranean and Atlantic populations of loggerhead turtle *Caretta caretta* with a mitochondrial marker. *Comptes Rendus de l'Academie des Sciences, Paris, Sciences de la vie* 316:1233-1239.
- Allard, M.W., M.M. Miyamoto, K.A. Bjorndal, A.B. Bolten, B.W. Bowen. 1994. Support for natal homing in green turtles from mitochondrial DNA sequences. *Copeia* 1994:34-41
- Ferl, R.J., G. Lu, B.W. Bowen. 1994. Evolutionary implications of the family of 14-3-3 brain protein homologs in *Arabidopsis thaliana*. *Genetica* 92:129-138.
- Encalada, S.E., S. Eckert, B.W. Bowen. 1994. Forensic applications of mitochondrial DNA markers: origin of a confiscated green turtle. *Marine Turtle Newsletter* 66:1-3.
- Avise, J.C., B.W. Bowen. 1994. Investigating sea turtle migration using DNA markers. *Current Opinion in Genetics and Development* 4:882-886.
- Bowen, B.W., T.A. Conant, S.R. Hopkins-Murphy. 1994. Where are they now? The Kemp's ridley headstart project. *Conservation Biology* 8:853-856.
- Bowen, B.W., N. Kamezaki, C.J. Limpus, G.H. Hughes, A.B. Meylan, J.C. Avise. 1994. Global phylogeography of the loggerhead turtle (*Caretta caretta*) as indicated by mitochondrial DNA haplotypes. *Evolution* 48:1820-1828.
- Bowen, B.W., F.A. Abreu-Grobois, G.H. Balazs, N. Kamezaki, C.J. Limpus, R.J. Ferl. 1995. Trans-Pacific migrations of the loggerhead sea turtle demonstrated with mitochondrial DNA markers. *Proc. Natl. Acad. Sci. USA* 92:3731-3734.
- Bowen, B.W. 1995. Tracking marine turtles with genetic markers; voyages of the ancient mariners. *BioScience* 45:528-534.
- Karl, S.A., B.W. Bowen, J.C. Avise. 1995. Hybridization among the ancient mariners: identification and characterization of marine turtle hybrids with molecular genetic assays. *Journal of Heredity* 86:262-268.
- Sears, C.J., B.W. Bowen, R.W. Chapman, S.B. Galloway, S.R. Hopkins-Murphy, C.M. Woodley. 1995. Demographic composition of the juvenile loggerhead sea turtle (*Caretta caretta*) feeding population off Charleston, South Carolina: evidence from mitochondrial DNA markers. *Marine Biology* 123:869-874
- Bass, A.L., D.A. Good, K.A. Bjorndal, J.I. Richardson, Z.-M. Hillis, J.A. Horrocks, and B.W. Bowen. 1996. Testing models of female migratory behavior and population structure in the Caribbean hawksbill turtle, *Eretmochelys imbricata*, with mtDNA control region sequences. *Molecular Ecology* 5:321-328.
- Bowen, B.W., A.L. Bass, A. Garcia, C. E. Diez, R. van Dam, A. Bolten, K.A. Bjorndal, M.M. Miyamoto and R.J. Ferl. 1996. The origin of hawksbill turtles in a Caribbean feeding area as indicated by genetic markers. *Ecological Applications* 6:566-572.
- Encalada, S.E., P.N. Lahanas, K.A. Bjorndal, A.B. Bolten, M.M. Miyamoto, B.W. Bowen. 1996. Phylogeography and population structure of the green turtle (*Chelonia mydas*) in the Atlantic Ocean and Mediterranean Sea: a mitochondrial DNA control region sequence assessment. *Molecular Ecology* 5:473-484.
- Bowen, B.W., W.S. Grant. 1997. Phylogeography of the sardines (*Sardinops* spp.): assessing biogeographic models and population histories in temperate upwelling zones. *Evolution* 51: 1601-1610.
- Encalada, S.E., K.A. Bjorndal, A.B. Bolten, J.C. Zurita, B. Schroeder, E. Possardt, C.J. Sears, B.W. Bowen. 1998. Population structure of loggerhead turtle (*Caretta caretta*) nesting colonies in the Atlantic and Mediterranean regions as inferred from mtDNA control region sequences. *Marine Biology* 130:567-575.
- Bolten, A.B., K.A. Bjorndal, H.R. Martins, T. Dellinger, M.J. Biscoito, S.E. Encalada, B.W. Bowen. 1998. Trans-Atlantic developmental migrations of loggerhead sea turtles demonstrated by mtDNA sequence analyses. *Ecological Applications* 8:1-7.
- Lahanas, P.N., K.A. Bjorndal, A.B. Bolten, S. Encalada, M.M. Miyamoto, R.A. Valverde, B.W. Bowen. 1998. Genetic composition of a green turtle (*Chelonia mydas*) feeding ground population: evidence for multiple origins. *Marine Biology* 130:345-352.
- Bowen, B.W., A.M. Clark, F.A. Abreu-Grobois, A. Chavez, H. Reichart, R.J. Ferl. 1998. Global phylogeography of the ridley sea turtles (*Lepidochelys* spp.) inferred from mitochondrial DNA sequences. *Genetica* 101:179-189.
- Garcia-Rodriguez, A.I., B.W. Bowen, D. Domning, A. Mignucci-Giannoni, M. Marmontel, R. A. Montoya-Ospina, B. Morales-Vela, M. Rudin, R.K. Bonde, P.M. McGuire. 1998.

- Phylogeography of the West Indian manatee (*Trichechus manatus*): how many populations and how many taxa? *Molecular Ecology* 7:1137-1149.
- Grant, W.S., B.W. Bowen. 1998. Shallow population histories in deep evolutionary lineages of marine fishes: insights from the sardines and anchovies and lessons for conservation. *Journal of Heredity* 89: 415-426.
- Bass, A.L., C.J. LaGueux, B.W. Bowen. 1998. Origin of green turtles, *Chelonia mydas*, at "sleeping rocks" off the northeast coast of Nicaragua. *Copeia* 1998:1064-1069.
- Baldwin, J.D., A.L. Bass, B.W. Bowen, W.H. Clark, Jr. 1998. Molecular phylogeny and biogeography of the marine shrimp genus *Penaeus*. *Molecular Phylogenetics and Evolution* 10:399-407.
- Grant, W.S., A.M. Clark, and B.W. Bowen. 1998. Why RFLP analysis of control region sequences failed to resolve sardine (*Sardinops*) biogeography: insights from mitochondrial DNA cytochrome *b* sequences. *Canadian J. of Fisheries and Aquatic Sciences* 55:2539-2547.
- Bowen, B.W. 1998. What is wrong with ESUs? The gap between evolutionary theory and conservation principles. *Journal of Shellfish Research* 17:1355-1358.
- Roman, J., S. Santhuff, P. Moler, B.W. Bowen. 1999. Cryptic evolution and population structure of the alligator snapping turtle, *Macrolemys temminckii*. *Conservation Biology* 13:135-142.
- Clark, A.M., B.W. Bowen, L.C. Branch. 1999. Effects of natural habitat fragmentation on an endemic lizard (*Sceloporus woodi*): an historical perspective based on an mtDNA gene genealogy. *Molecular Ecology* 8:1093-1104.
- Karl, S.A., B.W. Bowen. 1999. Evolutionary significant units versus geopolitical taxonomy: molecular systematics of an endangered sea turtle (genus *Chelonia*). *Conservation Biology* 13:990-999.
- Dutton, P.H., B.W. Bowen, D.W. Owens, A. Barragan, S.K. Davis. 1999. Global phylogeography of the leatherback turtle, *Dermochelys coriacea*. *J. Zoology* 248:397-409.
- Bowen, B.W. 1999. Preserving genes, ecosystems, or species? Healing the fractured foundations of conservation policy. *Molecular Ecology* 8:S5-S10.
- Roman, J., D. Walker, B.W. Bowen. 1999. Genetic tools for forensic identification of snapping turtle (*Macrolemys temminckii* and *Chelydra serpentina*) products in the marketplace. *Herpetological Review* 30:218-219.
- Roman, J., B.W. Bowen. 2000. The mock turtle syndrome: genetic identification of turtle meat purchased in the southeast United States. *Animal Conservation* 3:61-65.
- Jones J.B., H. Bouzar, R.E. Stall, E.C. Almira, P.D. Roberts, B.W. Bowen, J. Sudberry, P.M. Strickler, J. Chun. 2000. Systematic analysis of xanthomonads (*Xanthomonas* spp.) associated with pepper and tomato lesions. *Int. J. Syst. Evol. Microbiol.* 50:1211-1219.
- Campton, D.E., A.L. Bass, F.A. Chapman, B.W. Bowen. 2000. Genetic distinction of pallid, shovelnose, and Alabama sturgeon: emerging species and the U.S. endangered species act. *Conservation Genetics* 1:17-32.
- Avise, J.E., W.S. Nelson, B.W. Bowen, D. Walker. 2000. Phylogeography of colonially-nesting seabirds, with special reference to global matrilineal patterns in the sooty tern (*Sterna fuscata*). *Molecular Ecology* 9:1783-1792.
- Muss, A., D.R. Robertson, C.A. Stepien, P. Wirtz, B.W. Bowen. 2001. Phylogeography of the genus *Ophioblennius*: the role of ocean currents and geography in reef fish evolution. *Evolution* 55:561-572.
- Colborn, J., R.E. Crabtree, J.B. Shaklee, E. Pfeiler, B.W. Bowen. 2001. The evolutionary enigma of bonefishes (*Albula* spp.): cryptic species and ancient separations in a globally-distributed shorefish. *Evolution* 55:807-820.
- Bowen, B.W., A.L. Bass, L.A. Rocha, W.S. Grant, D.R. Robertson. 2001. Phylogeography of the trumpetfish (*Aulostomus* spp.): ring species complex on a global scale. *Evolution* 55:1029-1039.
- Rankin-Baransky, K., C.J. Williams, A.L. Bass, B.W. Bowen, J.R. Spotila. 2001. Origin of loggerhead turtle (*Caretta caretta*) strandings in the northwest Atlantic as determined by mtDNA analysis. *J. Herpetology* 35:638-646.
- Rocha, L.A., A.L. Bass, D.R. Robertson, B.W. Bowen. 2002. Adult habitat preferences, larval dispersal, and the comparative phylogeography of three Atlantic surgeonfishes (Teleostei: Acanthuridae). *Molecular Ecology* 11:243-252.
- Quattro, J.M., T.W. Greig, D.K. Coykendoll, B.W. Bowen, J.D. Baldwin. 2002. Genetic issues in aquatic species management: the shortnose sturgeon (*Acipenser brevirostrum*) in the southeastern United States. *Conservation Genetics* 3:155-166.
- Urena-Padilla, A.R., S.J. MacKenzie B.W. Bowen, D.E. Legard. 2002. Etiology and population genetics of *Colletotrichum* spp. causing crown and fruit rot of strawberry. *Phytopathology* 92:1245-1252.

- Branch, L.C., A.-M. Clark, P.E. Moler, B.W. Bowen. 2003. Habitat specificity, fragmented landscapes, and the phylogeography of three lizards in Florida scrub. *Conservation Genetics* 4:199-212.
- Clark, A.-M., P.E. Moler, E. Possardt, A.H. Savitsky, W.S. Brown, B.W. Bowen. 2003. Phylogeography of the timber rattlesnake *Crotalus horridus*, based on mtDNA sequences. *Journal of Herpetology* 37:145-154.
- Carlin, J.L., D.R. Robertson, B.W. Bowen. 2003. Ancient divergences and recent connections in two tropical Atlantic reef fishes *Epinephelus adscensionis* and *Rypticus saponaceus* (Percoidae: Serranidae). *Marine Biology* 143: 1057–1069.
- Lecomte, F.L., W.S. Grant, J.J. Dodson, R. Rodriguez-Sanchez, B.W. Bowen. 2004. Living with uncertainty: genetic imprints of climate shifts in East Pacific anchovy (*Engraulis mordax*) and sardine (*Sardinops sagax*). *Molecular Ecology* 13: 2169–2182.
- Bowen, B.W., A.L. Bass, S.-M. Chow, M. Bostrom, K.A. Bjorndal, A.B. Bolten, T. Okuyama, B. Bolker, S. Epperly, E. LaCasella, D. Shaver, M. Dodd, S. Hopkins-Murphy, J.A. Musick, M. Swingle, K. Rankin-Baransky, W. Teas, W. Witzell, P. Dutton. 2004. Natal homing in juvenile loggerhead turtles (*Caretta caretta*). *Molecular Ecology* 13: 3797–3808.
- Rocha, L.A., D.R. Robertson, J. Roman, B.W. Bowen. 2005. Ecological speciation in tropical reef fishes. *Proceedings of the Royal Society of London Series B* 272:573-579.
- Bowen, B.W., A.L. Bass, L. Soares, R.J. Toonen. 2005. Conservation implications of complex population structure: lessons from the loggerhead turtle (*Caretta caretta*). *Molecular Ecology* 14: 2389-2402.
- Grant, W.S., R.W. Leslie, B.W. Bowen. 2005. Molecular genetic assessment of bipolarity in the anchovy genus *Engraulis*. *Journal of Fish Biology* 67: 1242–1265.
- Bowen, B.W., J. Roman. 2005. Gaia's handmaidens: the Orlog model for conservation biology. *Conservation Biology* 19:1037-1043.
- Rocha, L.A., D.R. Robertson, C.R. Rocha, J.L. Van Tassell, M.T. Craig, B.W. Bowen. 2005. Recent invasion of the tropical Atlantic by an Indo-Pacific coral reef fish. *Molecular Ecology Fast Track* 14:3921-3928.
- Bowen, B.W., A. Muss, L.A. Rocha, W.S. Grant. 2006. Shallow mtDNA coalescence in Atlantic pygmy angelfishes (genus *Centropyge*) indicates a recent invasion from the Indian Ocean. *Journal of Heredity* 97:1-12.
- Duncan, K.M., A.P. Martin, B.W. Bowen, G.H. de Couet. 2006. Global phylogeography of the scalloped hammerhead shark (*Sphyrna lewini*). *Molecular Ecology* 15:2239-2251
- Bowen, B.W., A.L. Bass, A.J. Muss, J. Carlin, D.R. Robertson. 2006. Phylogeography of two Atlantic squirrelfishes (family Holocentridae): Exploring pelagic larval duration and population connectivity. *Marine Biology* 149:899-913.
- Grant, W.S., B.W. Bowen. 2006. Living in a tilted world: climate change and geography limit speciation in Old World anchovies (Genus *Engraulis*). *Biological Journal of the Linnean Society* 88: 673-690.
- Daly-Engel, T., R.D. Grubbs, K. Holland, R.J. Toonen, B.W. Bowen. 2006. Multiple paternity assessments for three species of congeneric sharks (*Carcharhinus*) in Hawaii. *Environmental Biology of Fishes* 76:419-424.
- Bowen, B.W., W.S. Grant, Z. Hillis-Starr, D. Shaver, K.A. Bjorndal, A.B. Bolten, A.L. Bass. 2007. Mixed stock analysis reveals the migrations of juvenile hawksbill turtles (*Eretmochelys imbricata*) in the Caribbean Sea. *Molecular Ecology* 16:49-60.
- Daly-Engel, T., R. Grubbs, B.W. Bowen, R.J. Toonen. 2007. Frequency of multiple paternity in an unexploited tropical population of sandbar sharks (*Carcharhinus plumbeus*). *Canadian Journal of Fisheries and Aquatic Science* 64: 198-204.
- Craig, M.T., J.A. Eble, D.R. Robertson, B.W. Bowen. 2007. High genetic connectivity across the Indian and Pacific Oceans in the reef fish *Myripristis berndti* (Holocentridae). *Marine Ecology Progress Series* 334: 245–254.
- Schultz, J.K., R.L. Pyle, E. DeMartini, B.W. Bowen. 2007. Genetic homogeneity among color morphs of the flame angelfish, *Centropyge loriculus*. *Marine Biology* 151: 167-175.
- Bird, C.J., B.S. Holland, B.W. Bowen, R.J. Toonen. 2007. Contrasting population structure in three endemic Hawaiian limpets (*Cellana* spp.) with similar life histories. *Molecular Ecology* 16:3173-3186.
- Rocha, L.A., M.T. Craig, B.W. Bowen. 2007. Phylogeography and the conservation genetics of coral reef fishes. *Coral Reefs Invited Review* 26: 501-512.
- Bowen, B.W., S.A. Karl. 2007. Population genetics and phylogeography of sea turtles. *Molecular Ecology Invited review* 16: 4886–4907.

- Castro A.L.F., Stewart B.S., Wilson S.G., Hueter R.H., Meekan M.G., Motta P.J., Bowen B.W., Karl S.A. 2007. Population genetic structure of Earth's largest fish, the whale shark (*Rhincodon typus*). *Molecular Ecology* 16: 5183-5192.
- Floeter, S.R., Rocha, L.A., Robertson, D.R., Joyeux, J.C., Smith-Vaniz, W.F., Wirtz, P., Edwards, A.J., Barreiros, J.P., Ferreira, C.E.L., Gasparini, J.L., Brito, A., Falcon, J.M., Bowen, B.W., Bernardi, G. 2008. Atlantic reef fish biogeography and evolution. *Journal of Biogeography* 35: 22-47.
- Baker, P., J.D. Austin, B.W. Bowen, S.M. Baker. 2008. Range-wide population structure and history of the northern quahog (*Mercenaria mercenaria*) inferred from mitochondrial DNA sequence data. *ICES Journal of Marine Science* 65:155-163.
- Rocha, L.A., B.W. Bowen. 2008. Speciation in coral reef fishes. *Journal of Fish Biology Invited Review* 72:1101-1121.
- Rocha, L.A., C. R. Rocha, D.R. Robertson, B. W. Bowen. 2008. Comparative phylogeography of Atlantic reef fishes indicates both origin and accumulation of diversity in the Caribbean. *BMC Evolutionary Biology* 8:157. <http://www.biomedcentral.com/1471-2148/8/157>
- Theisen, T.C., B.W. Bowen, W. Lanier, J.D. Baldwin. 2008. High connectivity on a global scale in the pelagic wahoo, *Acanthocybium solandri* (tuna family Scombridae). *Molecular Ecology* 17: 4233-4247.
- Schultz, J.K., K.A. Feldheim, S.H. Gruber, M.V. Ashley, T. M. McGovern, B.W. Bowen. 2008. Global phylogeography and seascape genetics of the lemon sharks (genus *Negaprion*). *Molecular Ecology* 17: 5336-5348
- Bienfang, P., B. Oben, S. DeFelice, P. Moeller, K. Huncik, P. Oben, R. Toonen, T. Daly-Engel, B. Bowen. 2008. Ciguatera: Detection of neurotoxins in carnivorous reef fish from Cameroon coast, West Africa. *African Journal of Marine Science* 30:533-540.
- Schultz, J.K., J.D. Baker, R.J. Toonen, B.W. Bowen. 2009. Extremely low genetic diversity in the endangered Hawaiian monk seal (*Monachus schauinslandi*). *Journal of Heredity* 100:25-33.
- Eble, J.A., R.J. Toonen, B.W. Bowen. 2009. Endemism and dispersal: comparative phylogeography of three surgeonfish species across the Hawaiian Archipelago. *Marine Biology* 156:689-698.
- Andrews, K.R., L. Karczmarski, W.W.L. Au, S. Rickards, C.A. Vanderlip, B.W. Bowen, R.J. Toonen. 2010. Rolling stones and stable homes; Social structure, habitat diversity, and population genetics of the Hawaiian spinner dolphin (*Stenella longirostris*). *Molecular Ecology* 19:732-748.
- Gaither, M.R., R.J. Toonen, D.R. Robertson, S. Planes, B.W. Bowen. 2010. Genetic evaluation of marine biogeographic barriers: perspectives from two widespread Indo-Pacific snappers (*Lutjanus* spp.). *Journal of Biogeography* 37:133-147.
- McBride, R.S., C.R. Rocha, R. Ruiz-Carus, B.W. Bowen. 2010. A new species of *Elops* (Elopiformes: Elopidae) from the North Atlantic Ocean. *Zootaxa* 2346:29-41.
- Gaither, M.R., B.W. Bowen, R.J. Toonen, S. Planes, V. Messmer, J. Earle, D.R. Robertson. 2010. Genetic consequences of introducing allopatric lineages of Bluestriped Snapper (*Lutjanus kasmira*) to Hawaii. *Molecular Ecology* 19: 1107 - 1121.
- Daly-Engel, T.S., R.D. Grubbs, K.W. Feldheim, B.W. Bowen, R.J. Toonen. 2010. Is multiple paternity beneficial or unavoidable? Low multiple paternity and genetic diversity in the shortspine spurdog shark (*Squalus mitsukurini*). *Marine Ecology Progress Series* 403:255-267.
- Reece, J.S., B.W. Bowen, K. Joshi, V. Goz, A.F. Larson. 2010. Phylogeography of two moray eels indicates high dispersal throughout the Indo-Pacific. *Journal of Heredity* 101:391 - 402.
- Grant, W.S., F. Lecomte, B.W. Bowen. 2010. Biogeographical contingency and the evolution of tropical anchovies *Cetengraulis* from temperate *Engraulis*. *Journal of Biogeography* 37:1352 - 1362.
- Gaither, M.R., R.J. Toonen, L. Sorenson, B.W. Bowen. 2010. Isolation and characterization of microsatellite markers for the Crimson Jobfish, *Pristipomoides filamentosus* (Lutjanidae). *Conservation Genetics Resources* 2:169-172.
- Craig, M.T., J. Eble, B.W. Bowen. 2010. Origins, ages, and populations histories: Comparative phylogeography of endemic Hawaiian butterflyfishes (genus *Chaetodon*). *Journal of Biogeography* 37:2125 - 2136.
- Reece, J.S., B.W. Bowen, D.G. Smith, A.F. Larson. 2010. Molecular phylogenetics of moray eels (Murenidae) demonstrates multiple origins of a shell-crushing jaw (*Gymnomuraena*, *Echidna*) and multiple colonizations of the Atlantic Ocean. *Molecular Phylogenetics and Evolution* 57:829 - 835.
- Wallace, B.P., A.D. DiMatteo, B.J. Hurley, E.M. Finkbeiner, A.B. Bolten, M.Y. Chaloupka, B.J. Hutchinson, F.A. Abreu-Grobois, D. Amorcho, K.A. Bjorndal, J. Bourjea, B.W. Bowen, R. Briceño Dueñas, P. Casale, B.C. Choudhury, A. Costa, P.H. Dutton, A. Fallabrino, A. Girard,

- M. Girondot, M.H. Godfrey, M. Hamann, M. López-Mendilaharsu, M.A. Marcovaldi, J.A. Mortimer, J.A. Musick, R. Nel, J.A. Seminoff, S. Troëng, B. Witherington, R.B. Mast. 2010. Regional management units for marine turtles: A novel framework for prioritizing conservation and research across multiple scales. *PLoS One* 5: e15465. doi:10.1371/journal.pone.0015465
- DiBattista, J.D., C. Wilcox, M.T. Craig, L.A. Rocha, B.W. Bowen. 2011. Phylogeography of the Pacific Blueline Surgeonfish *Acanthurus nigroris* reveals a cryptic species in the Hawaiian Archipelago. *Journal of Marine Biology*, Article ID 839134
- Eble, J.A., L.A. Rocha, M.T. Craig, B.W. Bowen. 2011. Not all larvae stay close to home: Long-distance dispersal in Indo-Pacific reef fishes, with a focus on the Brown Surgeonfish (*Acanthurus nigrofuscus*). *Journal of Marine Biology*, Article ID 518516
- Toonen, R.J., K.R. Andrews, I.B. Baums, C.E. Bird, C.T. Concepcion, T.S. Daly-Engel, J.A. Eble, A. Faucci, M.R. Gaither, M. Iacchei, J.B. Puritz, J.K. Schultz, D.J. Skillings, M. Timmers, B.W. Bowen. 2011. Defining boundaries for applying ecosystem-based management: A multispecies case study of marine connectivity across the Hawaiian Archipelago. *Journal of Marine Biology*, Article ID 460173
- DiBattista J.D., K.A. Feldheim, B.W. Bowen. 2011. Microsatellite DNA markers for population genetic and hybridization analysis of two closely related surgeonfish species, *Acanthurus nigricans* and *Acanthurus leucosternon*. *Conservation Genetic Resources* 3:159 – 162.
- Schultz, J.K., J.D. Baker, R.J. Toonen, A.L. Harting, B.W. Bowen. 2011. Range-wide genetic connectivity of the Hawaiian monk seal and implications for transplantation. *Conservation Biology* 25:124-132.
- Bjorndal, K.A., B.W. Bowen, M. Chaloupka, L.B. Crowder, S.S. Heppell, C.M. Jones, M.E. Lutcavage, D. Policansky, A.R. Solow, B.E. Witherington. 2011. Better science needed for restoration in the Gulf of Mexico. *Science* 330:437 - 438.
- Bird, C.E., B.S. Holland, B.W. Bowen, R.J. Toonen. 2011. Diversification of endemic sympatric limpets (*Cellana* spp.) in the Hawaiian Archipelago. *Molecular Ecology* 20:2128 – 2141.
- Eble, J.A., R.J. Toonen, L.L. Sorensen, L. Basch, Y. Papastamatiou, B.W. Bowen. 2011. Escaping paradise: Larval export from Hawaii in an Indo-Pacific reef fish, the Yellow Tang (*Zebrasoma flavescens*). *Marine Ecology Progress Series* 428:245 – 258.
- Gaither, M.R., B.W. Bowen, T.-R. Bordenave, L.A. Rocha, S.J. Newman, J.A. Gomez, L. van Herwerden, M.T. Craig. 2011. Phylogeography of the reef fish *Cephalopholus argus* (Epinephelidae) indicates Pleistocene isolation across the Indo-Pacific Barrier with contemporary overlap in the Coral Triangle. *BMC Evolutionary Biology* 11:189 doi:10.1186/1471-2148-11-189
- Reece, J.S., B.W. Bowen, A. Larson. 2011. Long larval duration in moray eels (Muraenidae) ensures ocean-wide connectivity despite differences in adult niche breadth. *Marine Ecology Progress Series* 437: 269 – 277.
- Wallace, B.P., A.D. DiMatteo, A.B. Bolten, M.Y. Chaloupka, B.J. Hutchinson, F.A. Abreu-Grobois, J.A. Mortimer, J.A. Seminoff, D. Amorcho, K.A. Bjorndal, J. Bourjea, B.W. Bowen, R. Briseño Dueñas, P. Casale, B.C. Choudhury, A. Costa, P.H. Dutton, A. Fallabrino, E.M. Finkbeiner, A. Girard, M. Girondot, M. Hamann, B.J. Hurley, M. Lopez-Mendilaharsu, M.A. Marcovaldi, J.A. Musick, R. Nel, N.J. Pilcher, S. Troëng, B. Witherington, R.B. Mast. 2011. Global conservation priorities for marine turtles. *PLoS One* 6: e24510. doi:10.1371/journal.pone.0024510
- Gaither, M.R., S.A. Jones, C. Kelley, S.J. Newman, L. Sorenson, B.W. Bowen. 2011. High connectivity in the deepwater snapper *Pristipomoides filamentosus* (Lutjanidae) across the Indo-Pacific with isolation of the Hawaiian Archipelago. *PLoS One* 6: e28913. doi:10.1371/journal.pone.0028913.
- Briggs, J.C., B.W. Bowen. 2012. A realignment of marine biogeographic provinces with particular reference to fish distributions. *Journal of Biogeography* 39:12 – 30.
- Daly-Engel, T.S., K.D. Seraphin, K.N. Holland, J.P. Coffey, H.A. Nance, R.J. Toonen, B.W. Bowen. 2012. Global phylogeography with mixed marker analysis reveals male-mediated dispersal in the endangered scalloped hammerhead shark (*Sphyrna lewini*). *PLoS One* 7: e29986. doi:10.1371/journal.pone.0029986
- Daly-Engel, T.S., J.E. Randall, B.W. Bowen. 2012. Is the Great Barracuda (*Sphyraena barracuda*) a reef fish or a pelagic fish? The phylogeographic perspective. *Marine Biology* 159: 975 – 985.
- Sheppard, C.R.C., M. Ateweberhan, B.W. Bowen, P. Carr, C.A. Chen, C. Clubbe, M.T. Craig, R. Ebinghaus, J. Eble, N. FitzSimmons, M.R. Gaither, C.-H. Gan, M. Gollock, N. Guzman, N.A.J. Graham, A. Harris, R. Jones, S. Keshavmurthy, H. Koldewey, C.G. Lundin, J.A. Mortimer, D. Obura, M. Pfeiffer, A.R.G. Price, S. Purkis, P. Raines, J.W. Readman, B. Riegl, A. Rogers, M. Schleyer, M.R.D. Seaward, A.L.S. Sheppard, J. Tanelander, J.R. Turner, S. Visram, C.

- Vogler, S. Vogt, H. Wolschke, J. M.-C. Yang, S.-Y. Yang, C. Yesson. 2012. Reefs and islands of the Chagos Archipelago, Indian Ocean: Why it is the world's largest no-take marine protected area. *Aquatic Conservation: Marine and Freshwater Ecosystems* 22:232 – 261.
- Whitney, N.M., W.D. Robbins, J.K. Schultz, B.W. Bowen, K.N. Holland. 2012. Phylogeography of the whitetip reef shark (*Triaenodon obesus*): a sedentary species with a broad distribution. *Journal of Biogeography* 39: 1144 – 1156.
- Ludt, W.B., M. Bernal, B.W. Bowen, L.A. Rocha. 2012. Living in the past: Phylogeography and population histories of Indo-Pacific wrasses (Genus *Halichoeres*) in shallow lagoons versus outer reef slopes. *PLoS One* 7: e38042 doi:10.1371/journal.pone.0038042
- DiBattista, J.D., E. Waldrop, B.W. Bowen, J.K. Schultz, M.R. Gaither, R.L. Pyle, L.A. Rocha. 2012. Twisted sister species of Pygmy Angelfishes: Discordance between taxonomy, coloration, and phylogenetics. *Coral Reefs* 31:839 – 851.
- Karl, S.A., R.J. Toonen, W.S. Grant, B.W. Bowen. 2012. Common misconceptions in molecular ecology: Echos of the modern synthesis. *Molecular Ecology* 21: 4171-4189. *Invited Review*
- DiBattista, J.D., M.T. Craig, L.A. Rocha, K.A. Feldheim, B.W. Bowen. 2012. Phylogeography of the Indo-Pacific butterflyfishes, *Chaetodon meyeri* and *Chaetodon ornatissimus*: Sister species reveal divergent evolutionary histories and discordant results from mtDNA and microsatellites. *Journal of Heredity* 103:617 – 629.
- DiBattista, J.D., J.E. Randall, B.W. Bowen. 2012. Review of the round herrings of the genus *Etrumeus* (Clupeidae: Dussumieriinae) of Africa, with description of two new species. *Cybium* 36:447 – 460.
- Gaither, M.R., R.J. Toonen, B.W. Bowen. 2012. Coming out of the starting blocks: the importance of lag period and stochasticity in shaping patterns of genetic diversity in marine invaders. *Proceedings of the Royal Society of London Series B* 279:3948 - 3957.
- Fernandez-Silva, I., J. Whitney, B. Wainwright, K.R. Andrews, H. Ylitalo-Ward, B.W. Bowen, R.J. Toonen, E. Goetze, S.A. Karl. 2013. Microsatellites for the next-generation of ecologists: A post-sequencing bioinformatics pipeline reduces laboratory testing in microsatellites development from 454. *PLoS One* 8: e55990. doi:10.1371/journal.pone.0055990
- Gaither, M.R., G. Aeby, M. Vignon, Y. Meguro, M. Rigby, C. Runion, R.J. Toonen, C.L. Wood, B.W. Bowen. 2013. An invasive fish and the time-lagged spread of its parasite across the Hawaiian archipelago. *PLoS One* 8: e56940. doi:10.1371/journal.pone.0056940
- Fernandez-Silva, I., B.N. Snelgrove, B.W. Bowen. 2013. Twelve microsatellite DNA markers to resolve population structure of the Yellow-Striped Goatfish *Mulloidichthys flavolineatus* (family Mullidae). *Conservation Genetics Resources* 5:565 – 568.
- DiBattista, J.D., M.L. Berumen, M.R. Gaither, L.A. Rocha, J.A. Eble, J.H. Choat, M.T. Craig, D.J. Skillings, B.W. Bowen. 2013. After continents divide: Comparative phylogeography of reef fishes from the Red Sea and Indian Ocean. *Journal of Biogeography* 40:1170 – 1181. doi:10.1111/jbi.12068
- Briggs, J.C., B.W. Bowen. 2013. Evolutionary patterns: Marine shelf habitat. *Journal of Biogeography* 40:1023 – 1035. doi:10.1111/jbi.12082
- Andrews, K.R., W.F. Perrin, M. Oremus, L. Karczmarski, B.W. Bowen, J.B Puritz, R.J. Toonen. 2013. The evolving male: Spinner dolphin (*Stenella longirostris*) ecotypes are divergent at Y chromosome but not mtDNA or autosomal markers. *Molecular Ecology* 22:2408 – 2423 doi: 10.1111/mec.12193
- Gaither, M.R., B.W. Bowen, R.J. Toonen. 2013. Population structure in the native range predicts the spread of introduced marine species. *Proceedings of the Royal Society of London Series B* 280: 20130409. <http://dx.doi.org/10.1098/rspb.2013.0409>
- Bowen, B.W., L.A. Rocha, R.J. Toonen, S.A. Karl, M.T. Craig, J.D. DiBattista, J.A. Eble, M.R. Gaither, D. Skillings, C.E. Bird. 2013. Origins of tropical marine biodiversity. *Trend in Ecology and Evolution* 28:359 – 366. doi.org/10.1016/j.tree.2013.01.018
- Toonen, R.J., T.A. Wilhelm, S.M. Maxwell, D. Wagner, B.W. Bowen, C. Sheppard, S.M. Tabei, T. Teroroko, R. Moffitt, C.F. Gaymer, L. Morgan, N. Lewis, A. Sheppard, J. Parks, A.M. Friedlander, The Big Ocean Think Tank. 2013. One size does not fit all: The emerging frontier in large-scale marine conservation. *Marine Pollution Bulletin* 77:7 – 10.
- Bowen, B.W., K. Shanker, N. Yasuda, M.C.D. Malay, S. von der Heyden, G. Paulay, L.A. Rocha, K.A. Selkoe, P.H. Barber, S.T. Williams, H.A. Lessios, E.D. Crandall, G. Bernardi, C.P. Meyer, K.E. Carpenter, R.J. Toonen. 2014. Phylogeography unplugged: Comparative surveys in the genomic era. *Bulletin of Marine Science* 90:13 – 46. <http://dx.doi.org/10.5343/bms.2013.1007>
- Szabo Z., B. Snelgrove, M.T. Craig, L.A. Rocha, B.W. Bowen. 2014. Phylogeography of the Manybar Goatfish, *Parupeneus multifasciatus* reveals moderate structure between the Central and

- North Pacific and a cryptic endemic species in the Marquesas. *Bulletin of Marine Science* 90:493 – 512. <http://dx.doi.org/10.5343/bms.2013.1032>
- Gaither, M.R., J.K. Schultz, D. Bellwood, R.L. Pyle, J.D. DiBattista, L.A. Rocha, B.W. Bowen. 2014. Evolution of pygmy angelfishes: recent divergences, introgression, and the usefulness of color in taxonomy. *Molecular Phylogenetics and Evolution* 74:38 – 47.
- Andrews, K.R., V. Moriwake, C. Wilcox, C. Kelley, E.G. Grau, B.W. Bowen. 2014. Phylogeographic analyses of submesophotic snappers *Etelis coruscans* and *Etelis "marshi"* (Family Lutjanidae) reveal concordant genetic structure across the Hawaiian Archipelago. *PLoS One* 9: e91665. doi:10.1371/journal.pone.0091665
- Selkoe, K.A., O. Gaggiotti, K.R. Andrews, M.A. Bernal, C. Bird, H. Bolick, I. Baums, R. Coleman, G.T. Concepcion, M.T. Craig, J.D. DiBattista, J. Eble, I. Fernandez-Silva, M.R. Gaither, M. Iacchei, N.R. Polato, M.A.J. Rivera, L.A. Rocha, D. Skillings, M. Timmers, Z. Szabo, B.W. Bowen, R.J. Toonen. 2014. Emergent patterns of population genetic structure for a coral reef community. *Molecular Ecology* 23:3064 – 3079.
- DiBattista J.D., J.E. Randall, S. Newman, B.W. Bowen. 2014. Round herring (genus *Etrumeus*) contain distinct evolutionary lineages coincident with a biogeographic barrier along Australia's southern temperate coastline. *Marine Biology* 161:2465 – 2477.
- Coleman R.R., M.R. Gaither, B. Kimokeo, F. Stanton, B.W. Bowen, R.J. Toonen. 2014. Large-scale introduction of the Indo-Pacific damselfish *Abudefduf vaigiensis* into Hawai'i promotes genetic swamping of the endemic congener *A. abdominalis*. *Molecular Ecology* 23:5552 – 5565.
- Tenggardjaja, K.A., B.W. Bowen, G. Bernardi. 2014. Vertical and horizontal connectivity in *Chromis verater*, an endemic damselfish found on shallow and mesophotic reefs in the Hawaiian Archipelago and Johnston Atoll. *PLoS One* 9: e115493. doi:10.1371/journal.pone.0115493
- Gaither, M.R., M.A. Bernal, R.R. Coleman, B.W. Bowen, S.A. Jones, W.B. Simison, L.A. Rocha. 2015. Genomic signatures of geographic isolation and natural selection in coral reef fishes. *Molecular Ecology* 24:1543-1557.
- DiBattista J.D., L.A. Rocha, J-P.A. Hobbs, S. He, M.A. Priest, T.H. Sinclair-Taylor, B.W. Bowen, M.L. Berumen. 2015. When biogeographic provinces collide: Hybridization of reef fishes at the crossroads of marine biogeographic provinces in the Arabian Sea. *Journal of Biogeography* 42:1601 – 1614.
- DiBattista J.D., E. Waldrop, L.A. Rocha, M.T. Craig, M.L. Berumen, B.W. Bowen. 2015. Blinded by the bright: A lack of congruence between color morphs, phylogeography, and taxonomy in a cosmopolitan Indo-Pacific butterflyfish, *Chaetodon auriga*. *Journal of Biogeography* 42:1919 – 1929.
- Fernandez-Silva I., J.E. Randall, R.R. Coleman, J.D. DiBattista, L.A. Rocha, J.D. Reimer, C.G. Meyer, B.W. Bowen. 2015. Yellow tails in a Red Sea: Phylogeography of the Indo-Pacific goatfish *Mulloidichthys flavolineatus* reveals isolation in peripheral provinces and cryptic evolutionary lineages. *Journal of Biogeography* 42: 2402 - 2413
- DiBattista J.D., M. Roberts, A.H. Baird, F. Benzoni, J. Bouwmeester, B.W. Bowen, D.J. Coker, D.F. Lozano-Cortes, J.H. Choat, M.R. Gaither, J.-P.A. Hobbs, M.T. Khalil, M. Kochzius, R. Myers, G. Paulay, V.S.N. Robitzsch, P. Saenz-Agudelo, E. Salas, T.H. Sinclair-Taylor, R.J. Toonen, M.W. Westneat, S.T. Williams, M.L. Berumen. 2016. A review of contemporary patterns of endemism in the Red Sea. *Journal of Biogeography* 43:423-439.
- Tenggardjaja, K.A., B.W. Bowen, G. Bernardi. 2016. Reef fish dispersal in the Hawaiian Archipelago: comparative phylogeography of three endemic damselfishes. *Journal of Marine Biology*: Article ID 3251814
- Coleman, R.R., J.A. Eble, J.D. DiBattista, L.A. Rocha, J.E. Randall, M.L. Berumen, B.W. Bowen. 2016. Regal phylogeography: range-wide survey of the marine angelfish *Pygoplites diacanthus* reveals evolutionary partitions between the Red Sea, Indian Ocean, and Pacific Ocean. *Molecular Phylogenetics and Evolution* 100:243 – 253.
- Selkoe, K.A., O.E. Gaggiotti, E.A. Trembl, J.L.K. Wren, M.K. Donovan, Hawaii Reef Connectivity Consortium, R.J. Toonen. 2016. The DNA of coral reef biodiversity – predicting and protecting genetic diversity of reef assemblages. *Proceedings of the Royal Society of London Series B* 283: 20160354
- Iacchei M., M.R. Gaither, B.W. Bowen, R.J. Toonen. 2016. Predicting provincial boundaries for phyllosoma: range-wide phylogeography of the pronghorn spiny lobster *Panulirus penicillatus*. *Journal of Biogeography* 43:1032-1044.
- Andrews, K.R., A.J. Williams, I. Fernandez-Silva, S.J. Newman, J.M. Copus, C. Wakefield, J.E. Randall, B.W. Bowen. 2016. Phylogeny of deepwater snappers (Genus *Etelis*) reveals a cryptic species pair in the Indo-Pacific and Pleistocene invasion of the Atlantic. *Molecular Phylogenetics and Evolution* 100:361 – 371.

- DiBattista J.D., J. Whitney, M.T. Craig, J.-P. A. Hobbs, L.A. Rocha, K.A. Feldheim, M.L. Berumen, B.W. Bowen. 2016. Surgeons and suture zones: hybridization among four surgeonfish species in the Indo-Pacific with variable evolutionary outcomes. *Molecular Phylogenetics and Evolution* 101:203 – 215.
- Bowen, B.W. 2016. The three domains of conservation genetics: Case histories from Hawaiian waters. *Journal of Heredity* 107:309-317
- Ahti, A.P., R.R. Coleman, J.D. DiBattista, M.L. Berumen, L.A. Rocha, B.W. Bowen. 2016. Phylogeography of Indo-Pacific reef fishes: Sister wrasses *Coris gaimard* and *C. cuvieri* in the Red Sea, Indian Ocean, and Pacific Ocean. *Journal of Biogeography* 43:1103-1115
- Waldrop E., J.P. Hobbs, J.E. Randall, J.D. DiBattista, L.A. Rocha, R.K. Kosaki, M.L. Berumen, B.W. Bowen. 2016. Phylogeography, population structure, and evolution of coral-eating butterflyfishes (Family Chaetodontidae, genus *Chaetodon*, subgenus *Corallochaetodon*). *Journal of Biogeography* 43:1116-1129
- Avise, J.C., B.W. Bowen, F.J. Ayala. 2016. In the light of evolution X: Comparative phylogeography. *Proceedings of the National Academy of Sciences USA* 113:7957 – 7961.
- Bowen, BW, Gaither MR, DiBattista JD, Iacchei M, Andrews KR, Grant WS, Toonen RJ, Briggs JC. 2016. Comparative phylogeography of the ocean planet. *Proceedings of the National Academy of Sciences USA* 113: 7962 – 7969.
- Salerno, J.L., B.W. Bowen, M.S. Rappe. 2016. Biogeography of planktonic and coral-associated microorganisms across the Hawaiian Archipelago. *FEMS Microbiology Ecology* 92: fiw109. doi: 10.1093/femsec/fiw109
- Gaither, M.R., B.W. Bowen, L.A. Rocha, J.C. Briggs. 2016. Fishes that rule the world: circumglobal distributions revisited. *Fish and Fisheries* 17:664 – 679.
- Pyle, R.L., R. Boland, H. Bolick, B.W. Bowen, C.J. Bradley, C. Kane, R.K. Kosaki, R. Langston, K. Longenecker, A. Montgomery, F.A. Parrish, B.N. Popp, J. Rooney, C.M. Smith, D. Wagner, H.L. Spalding. 2016. A comprehensive investigation of mesophotic coral ecosystems in the Hawaiian Archipelago. *PeerJ* 4:e2475 DOI 107717/peerj.2475
- DiBattista, J.D., M.R. Gaither, J.-P. A. Hobbs, L.A. Rocha, B.W. Bowen. 2016. Angelfishes, paper tigers, and the devilish taxonomy of the *Centropyge flavissima* complex. *Journal of Heredity* 107:647 – 653.
- Krysko, K.L., L.P. Nuñez, C.E. Newman, B.W. Bowen. 2017. Phylogenetics of kingsnakes, *Lampropeltis getula* complex (Serpentes: Colubridae), in eastern North America. *Journal of Heredity* 108:226 – 238.
- DiBattista, J.D., M.R. Gaither, J.-P. A. Hobbs, P. Saenz-Agudelo, M.J. Piatek, B.W. Bowen, L.A. Rocha, J.H. Choat, J.H. McIlwain, M.A. Priest, T.H. Sinclair-Taylor, M.L. Berumen. 2017. Comparative phylogeography of reef fishes from the Gulf of Aden to the Arabian Sea reveals two cryptic lineages. *Coral Reefs* 36: 625 – 638.
- Wilcox C.L., H. Motomura, M. Matsunuma, B.W. Bowen. 2018. Phylogeographic analyses of lionfish (*Pterois*) species indicate taxonomic oversplitting and hybrid origin for the invasive *Pterois volitans*. *Journal of Heredity* 109:162 – 175.
- Dudoit, A., M. Iacchei, R.R. Coleman, M.R. Gaither, W. Browne, B.W. Bowen, R.J. Toonen. 2018. The little shrimp that could: phylogeography of the circumtropical shrimp, *Stenopus hispidus* (Crustacea: Decapoda), reveals divergent Atlantic and Pacific lineages, *PeerJ* 6:e4409 DOI 10.7717/peerj.4409
- Whitney, J.L., B.W. Bowen, S.A. Karl. Flickers of speciation: sympatric color morphs of the Arc-eye Hawkfish, *Paracirrhites arcatus*, *Molecular Ecology* *In press*
- Copus, J.M., W.L. Montgomery, Z. Forsman, B.W. Bowen, R.J. Toonen. Geopolitical species revisited: Genomic and morphological data indicate that the Roundtail Chub *Gila robusta* species complex (Teleostei, Cyprinidae) is a single species. *Submitted*
- Kamakawa, K.T., R.L. Humphreys, Jr., B.W. Bowen, A.M. Friedlander. Recruitment dynamics and fishery characteristics for juvenile goatfish (genus *Mulloidichthys*) in Hawaii. *Submitted*
- Pyle, R.L., J.M. Copus, B.W. Bowen, R.K. Kosaki. The habitat persistence hypothesis: A new perspective on the distribution of coral-reef organisms. *Journal of Biogeography* *In revision*
- Coleman R.R., J.M. Copus, D.M. Coffey, R.K. Whitton, B.W. Bowen. Fish assemblages shift along a depth gradient in Micronesia. *Submitted*
- Tenggardjaja KA, Bowen BW, Bernardi G. Biogeographic range size and dispersal: comparative phylogeography of widespread and endemic damselfishes in the Hawaiian Archipelago. *Submitted*

ADDITIONAL PUBLICATIONS FROM BOWEN LAB

- Schultz, J.K., J.E. Randall. 2006. *Ostorhinchus leslie*, a new coral cardinalfish from American Samoa. *Aqua* 12: 1-10.
- Weaver, D.C., L.A. Rocha. 2007. A new species of *Halichoeres* (Teleostei: Labridae) from the western Gulf of Mexico. *Copeia* 2007:798-807.
- Craig, M.T. 2007. Facultative cleaning by the forcepsfish, *Forcipiger flavissimus*. *Copeia* 2007:459-461.
- Randall, J.E., J.K. Schultz. 2008. *Cirrhitops mascarenensis*, a new species of hawkfish from the Mascarene Islands, southwestern Indian Ocean. *Smithiana* 9: 15-20.
- Rocha, L.A., K.C. Lindeman, C.R. Rocha, H.A. Lessios. 2008. Historical biogeography and speciation in the reef fish genus *Haemulon* (Teleostei: Haemulidae). *Mol Phylogen Evol* 48:918-928
- Craig, M. T. and J. E. Randall. 2008. Two new species of the Indo-Pacific clingfish genus *Discotrema* Briggs (Gobiesocidae). *Copeia* 2008:66-72.
- Craig, M. T., R. T. Graham, R. A. Torres, J. R. Hyde, M. O. Freitas, B. P. Ferreira, M. Hostim, L. C. Gerhardinger, A. B. Andrade, and D. R. Robertson. 2008. How many species of goliath grouper are there? Cryptic genetic divergence in a threatened marine fish and the resurrection of a geopolitical species. *Endang Species Res* 7:167-174.
- Randall, J.E., J.L. Earle, L.A. Rocha. 2008. *Xyrichtys pastellus*, a new razorfish from the southwest Pacific with discussion of the related *X. sciistius* and *X. woodi*. *Aqua* 14 (3-10):149-158.
- Craig, M. T., J. E. Randall, M. Stein. 2008. The Fourspot Butterflyfish (*Chaetodon quadrimaculatus*) from the Philippines and the Solomon Islands, first records for the East Indies and Melanesia. *Aqua* 14:159-164.
- Craig, M. T. 2008. The Goldrim Surgeonfish (*Acanthurus nigricans*; Acanthuridae) from Diego Garcia, Chagos Archipelago: first record for the central Indian Ocean. *Zootaxa* 1850:65-68.
- Christie, M.R., J.A. Eble. 2009. Isolation and characterization of 23 microsatellite loci in the yellow tang, *Zebrasoma flavescens*. *Mol Ecol Res* 9:544-546.
- Nance, H.A., T.S. Daly-Engel, and P.B. Marko. 2009. New microsatellite loci for the endangered scalloped hammerhead shark, *Sphyrna lewini*. *Mol Ecol Res* 9:955-957.
- Randall, J.E., L.A. Rocha. 2009. *Halichoeres claudia*, a new Indo-Pacific wrasse (Perciformes: Labridae), the fourth species of the *H. ornatissimus* complex. *Zool. Stud.* 48:709-718.
- Randall, J.E., L.A. Rocha. 2009. *Chaetodontoplus poliourus*, a new angelfish (Perciformes: Pomacanthidae) from the tropical western Pacific. *Raffles Bull. Zool.* 57:511-520.
- Randall J.E., J.K. Schultz. 2009. *Pictichromis dinar*, a new dottyback (Perciformes: Pseudochromidae) from Indonesia. *Aqua, International Journal of Ichthyology* 15: 169-176.
- Schultz, J.K., A.J. Marshall, M. Pfunder. 2010. Genome-wide loss of diversity in the critically endangered Hawaiian monk seal. *Diversity* 2010:863 – 880.
- Gaither, M.R., Z. Szabó, M. Crepeau, C.J. Bird, R.J. Toonen. 2011. Preservation of corals in salt-saturated DMSO buffer is superior to ethanol for PCR experiments. *Coral Reefs* 30:329 – 333. DOI 10.1007/s00338-010-0687-1
- DiBattista, J.D., K.A. Feldheim. 2011. Isolation and characterization of eight microsatellite loci in *Chaetodon ornatissimus* and cross-amplification in its sympatric sister species, *Chaetodon meyeri*. *Conservation Genetic Resources* 3:159 – 162.
- Randall, J.E., J.D. DiBattista, C. Wilcox. 2011. *Acanthurus nigros* Gunther, a valid species of surgeonfish, distinct from the Hawaiian *A. nigroris* Valenciennes. *Pacific Science* 65: 265 – 275.
- Ebert, D.A., W.T. White, K.J. Goldman, L.J.V. Compagno, T.S. Daly-Engel, and R.D. Ward. 2011. Reevaluation and redescription of *Squalus suckleyi* (Girard, 1854) from the North Pacific, with comments on the *Squalus acanthias* subgroup (Squaliformes: Squalidae: *Squalus*). *Zootaxa* 2612:22 – 40.
- Szabo, Z., B.K. Kimokeo, R.J. Toonen & J.E. Randall. 2011. On the status of the Hawaiian seahorses *Hippocampus hilonis*, *H. histrix*, and *H. fisheri*. *Marine Biological Research* 7:701-709.
- Leis, J.M., Hay, A.C., Gaither, M.R. 2011. Swimming ability and its rapid decrease at settlement in wrasse larvae (Teleostei: Labridae). *Marine Biology* 158:1239 – 1246.
- Randall, J.E., J.D. DiBattista. 2012. *Etrumeus makiawa*, a new species of Round Herring (Clupeidae: Dussumierinae) from the Hawaiian Islands. *Pacific Science* 66:97 – 110.
- Gaither M.R., Randall J.E. 2012. On the validity of the Cirrhitid fish genus *Itycirrhitus* *Aqua: International Journal of Ichthyology* 18:219-226.
- Wilcox, C. 2012. Guest Editorial: It's time to e-volve: Taking responsibility for science communication in a digital age. *Biological Bulletin* 225:85 – 87.
- Gaither M.R., Randall J.E. 2013. Reclassification of the Indo-Pacific Hawkfish *Cirrhites pinnulatus* (Forster). *Zootaxa*, 3599, 189-196.

- Randall J.E., J.D DiBattista. 2013. A new species of damselfish (Pomacentridae) from the Indian Ocean. *Aqua* 19: 1-15.
- Fernandez-Silva, I., R.J. Toonen. 2013. Optimizing selection of microsatellite loci from 454 pyrosequencing via post-sequencing bioinformatic analyses. Chapter 7 in Stella K. Kantartzi (ed.), *Microsatellites: Methods and Protocols*. Methods in Molecular Biology 1006:101 – 120. Springer Science+Business Media, Humana Press, Carbondale, Illinois.
- Kahng, S.E., J.M. Copus, D. Wagner. 2014. Recent advances in the ecology of mesophotic coral reef ecosystems (MCEs). *Current Opinion in Environmental Sustainability* 7: 72 - 81.
- DeMartini, E.E., R.C. Langston, J.A. Eble. 2014. Spawning seasonality and body sizes at sexual maturity in the bluespine unicornfish, *Naso unicornis*. *Ichthyological Research* 61: 243 – 251.
- Copus, J.M., R.L. Pyle, J.L. Earle. 2015a. *Neoniphon pencei*, a new species of holocentrid (Teleostei: Beryciformes) from Rarotonga, Cook Islands. *Biodiversity Data Journal* 3: e4180. doi:[10.3897/BDJ.3.e4180](https://doi.org/10.3897/BDJ.3.e4180)
- Wilcox, C.L., M.A. Hixon. 2015. False positive tests for ciguatera may derail efforts to control invasive lionfish. *Environmental Biology of Fishes* 98:961 – 969.
- Copus, J.M., C.A. Ka'apu-Lyons, R.L. Pyle. 2015b. *Luzonichthys seaver*, a new species of Anthiinae (Perciformes, Serranidae) from Pohnpei, Micronesia. *Biodiversity Data Journal* 3:e4902.
- Westbrook C.E., R.R. Ringang, S.M.A. Cantero, HDAR & TTNC Urchin Team, R.J. Toonen. 2015. Survivorship and feeding preferences among size classes of outplanted sea urchins, *Tripneustes gratilla*, and possible use as biocontrol for invasive alien algae. *PeerJ* 3:e1235; DOI [10.7717/peerj.1235](https://doi.org/10.7717/peerj.1235)
- Johnson, G.B., J. Hess, J.D. Reimer. 2016. The automated recovery timer (ART): An alternative to traditional 'burnwire'-based subsea instrument recovery devices. *SOJ Aquatic Research* 1(1);1-4.
- Fernandez-Silva I, J.E. Randall, D Golani, S.V. Bogorodsky. 2016. *Mulloidichthys flavolineatus flavicaudus* Fernandez-Silva & Randall (Perciformes, Mullidae), a new subspecies of goatfish from the Red Sea and Arabian Gulf. *Zookeys* 605: 131 – 157.
- Kahng, S., J.M. Copus, D. Wagner. 2017. Mesophotic coral ecosystems. Pp. 1 – 22 In S. Rossi (ed.) *Marine Animal Forests*. Springer, New York.

**Dr. Richard Pyle, Database Coordinator, Associate Zoologist, Dive Safety Officer
Bernice Pauahi Bishop Museum**

----- Original Message -----

From: Richard Pyle <pylediver@gmail.com> on behalf of Richard Pyle <deepreef@bishopmuseum.org>

Date: Sun, March 11, 2018 7:51 PM -0700

To: "Lynch, James M." <jim.lynch@klgates.com>

Subject: Review of Draft Environmental Assessments of Issuance of Commercial Aquarium Permits for the Islands of O'ahu and Hawai'i

To Whom it May Concern:

I have read and reviewed copies of the Draft Environmental Assessments of Issuance of Commercial Aquarium Permits for the Islands of both O'ahu and Hawai'i. My review is based on my expertise acquired over several decades as professional marine biologist and ichthyologist, including research and publications relating specifically to the Marine Aquarium trade.

Overall, I was extremely impressed with the thoroughness and accuracy of both draft Assessments. I have cross-checked many of the data summaries and other conclusions cited in the Assessments against the original published literature, and in all cases I have found them to be both accurate and complete as represented in the Assessments. Moreover, I found that the conclusions and recommendations included in both Assessments to be entirely appropriate and consistent with the available scientific data, as well as my own personal research and observations concerning the marine aquarium industry in Hawaii, and the particular species involved. The summary of the history and context of the industry in Hawaii is also accurate, complete, and represented without bias.

I was also very impressed with the wording, format, data tables, figures, and literature cited as presented in both Assessments. The content is complete and accurate, and the tone is neutral and appropriate.

I have provided some specific very minor suggestions on grammar and formatting, none of which affect the meaning and content of the overall Assessments.

Please feel free to contact me with any specific questions, comments, concerns, or requests for qualification or elaboration on any specific parts of either of the Draft Assessments.

Sincerely,

Richard L. Pyle, PhD
Associate Zoologist
Bernice Pauahi Bishop Museum
1525 Bernice Street, Honolulu, HI 96817-2704
Office: (808) 848-4115; Fax: (808) 847-8252
eMail: deepreef@bishopmuseum.org
BishopMuseum.org

Our Mission: Bishop Museum inspires our community and visitors through the exploration and celebration of the extraordinary history, culture, and environment of Hawai'i and the Pacific.

CURRICULUM VITAE

RICHARD L. PYLE

Department of Natural Sciences, Bishop Museum, 1525 Bernice St., Honolulu, HI 96817

Tel: +1 (808) 848-4115; email: deepreef@bishopmuseum.org

PERSONAL:

Born: 24 March 1967, Kailua, Hawaii

Married to Dr. Lisa A. Privitera (1994), daughter Cara (born 1995), son Owen (born 2000)

EDUCATION:

2003 Ph.D. – Department of Zoology, University of Hawaii at Manoa, Honolulu, Hawaii

1992 B.S. – Department of Zoology, University of Hawaii at Manoa, Honolulu, Hawaii

1985 High School Diploma, Punahou High School, Honolulu, Hawaii

EMPLOYMENT:

2010–present Dive Safety Officer, B.P. Bishop Museum, Honolulu, Hawaii

2002–present Database Coordinator, Department of Natural Sciences, B.P. Bishop Museum, Honolulu, Hawaii

2000 Graduate Teaching Assistant (Ichthyology Lab) – Department of Zoology, University of Hawaii at Manoa, Honolulu, Hawaii

1999–2002 Graduate Research Assistant (John E. Randall, PI) – Department of Zoology, University of Hawaii at Manoa, Honolulu, Hawaii

1997–present Associate Zoologist – Department of Natural Sciences, B.P. Bishop Museum, Honolulu, Hawaii

1990–present President – LavaVideo Productions, Inc.

1986–1997 Collections Technician – Ichthyology Collection, Department of Natural Sciences, B.P. Bishop Museum, Honolulu, Hawaii

1985–1986 Vice President/Chief Collector – Feetlebomb Fish of Palau, Inc., Koror, Palau

1985 Student Aquarist – Waikiki Aquarium, Honolulu, Hawaii

PROFESSIONAL SERVICE:

2012–present Member, Catalog of Life Global Team

2010–present Board of Editors, *Indo-Pacific Fishes*

2010–present Steering Committee Member, PLoS Biodiversity Hub

2010–present Principal Science Advisor – *One World Ocean* Campaign, MacGillivray Freeman Films

2009–2010 Committee Member, Special Committee on Electronic Publication, International Committee for Botanical Nomenclature.

2009–present Committee Member, International Committee for Bionomenclature

2008–present Founding Board Member, Plazi.ch Association (Plazi)

2008–2009 Program Committee, International Conference on Biodiversity Informatics (e-Biosphere)

2008–present Convener, Taxonomic Names and Concepts Group, Biodiversity Information Standards (TDWG)

2008–present Council Member, International Commission on Zoological Nomenclature (ICZN)

2007–present Steering Committee, World Registry of Marine Species (WoRMS)

2007–present Member, Informatics Advisory Board, Encyclopedia of Life (EoL)

2006–present Commissioner, International Commission on Zoological Nomenclature (ICZN)
2006 Active Participant in the Global Biodiversity Information Facility (GBIF) Globally Unique Identifiers (GUID) Workshop Series
2005 Active Participant in the development of the Taxonomic Concept Schema (TCS), Taxonomic Databases Working Group (TDWG)
2003–present Founding Board Member, Chief Technology Officer (2003–2005), Chief Science Officer (2005–2014), Chief Technology Officer (2014–present), Association for Marine Exploration (AME)
2001–present Committee Member, Pacific Basin Information Node, National Biological Information Infrastructure
2001 Promising Technology Committee – All Species Foundation, San Francisco, California
2001 CEO Search Committee – All Species Foundation
2000–present Manuscript Reviewer – *Marine Technology Society*
2000–2003 Scientific Advisor – MacGillivray Freeman Films
2000–2001 Database Consultant & Scientific Advisor – All Species Foundation
2000–2001 Organizing Committee – All Species Foundation
1998 Secretary, Diving Control Board – University of Hawaii at Manoa
1997–present Board of Advisors – International Association of Nitrox and Technical Divers (IANTD)
1997–present Web Site Development Group – Bernice P. Bishop Museum
1996–present Database Development Group – Bernice P. Bishop Museum
1996 Manuscript Reviewer – *Evolution*
1996 “Major Contributor” – Scientific Diving: A general Code of Practice. (N.C. Flemming and M.D. Max, eds.). Second Edition (1996), Sponsored by the World Underwater Federation (CMAS) and UNESCO’s Intergovernmental Oceanographic Commission (IOC). UNESCO Publishing, Paris. xviii+278 pp.
1995–1996 Board of Directors – Aquademy, Inc. (A California nonprofit public benefit corporation)
1995–2005 Diving Control Board Member – University of Hawaii at Manoa
1995–present Board of Advisors – *Immersed* technical journal
1995–present Data Standards Subcommittee – American Society of Ichthyologists and Herpetologists
1994–present Experimental Test Diver and Technical Consultant – Cis-Lunar Development Laboratories, Inc.
1994–1995 Organizing Committee Member – 20th Annual Albert L. Tester Memorial Symposium, University of Hawaii at Manoa
1994 Technical Advisor – CMAS/UNESCO Code of Practice for Scientific Diving
1994 Manuscript Reviewer – *Pacific Science*
1992–1996 Editorial Board and Contributing Editor – *AquaCorps* technical journal
1991–present Scientific Advisor – American Association of Zoological Parks and Aquariums
Marine Fishes Taxon Advisory Group
1991–1993 Hawaii State Shark Task Force
1990–present Board of Directors – Hawaii Tropical Fish Association
1989–present Contributing Editor – *Freshwater and Marine Aquarium Magazine*
1984–1985 Volunteer Aquarist – Waikiki Aquarium

GRANTS & AWARDS:

Pending:

- 2017 **PI:** ABI Development: Expanding the Global Names Architecture through development of the Global Names Usage Bank. National Science Foundation (DBI-1661545), 2016 (\$1,677,706).

Funded:

- 2016 **PI:** Preparation for an Expedition to Rapa Nui. NOAA Sanctuary Foundation, 2016 (\$15,000).
- 2016 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2016 (\$45,000).
- 2015 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2015 (\$45,000).
- 2014 **Co-PI:** Foundation Reefs: A Proposal to the Seaver Institute (Brian W. Bowen, PI), Seaver Institute, 1 June 2014 (\$20,800.00, of a total of \$101,353).
- 2014 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2014 (\$40,000).
- 2013 **Co-PI:** Foundation Reefs: A Proposal to the Seaver Institute (Brian W. Bowen, PI), Seaver Institute, 1 June 2013 (\$20,800.00, of a total of \$101,513).
- 2013 **Co-PI:** Combined Submersible and Rebreather Diver Operations for Scientific Research. (Kenneth R. Longenecker, PI), Hawaii Undersea Research Laboratory (HURL). 1 June 2013 (\$29,891.92).
- 2012 **Co-PI:** Foundation Reefs: A Proposal to the Seaver Institute (Brian W. Bowen, PI), Seaver Institute, 1 June 2012 (\$20,800.00, of a total of \$101,513).
- 2012 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2012 (\$90,000).
- 2011 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2011 (\$40,000).
- 2010 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2010 (\$50,000).
- 2010 **Co-PI:** Collaborative Research: ABI: Innovation: The Global Names Architecture, an infrastructure for unifying taxonomic databases and services for managers of biological information (PI of Bishop Museum Component; David J. Patterson, PI; Stanley D. Blum and Chris Freeland, Co-PIs for the collaborative proposal). National Science Foundation (DBI-1062441), 2010 (\$325,291; as part of a collaborative proposal totaling \$2,123,648).
- 2010 **PI:** Collaborative Research: BiSciCol Tracker: Towards a tagging and tracking infrastructure for biodiversity science collections (PI of Bishop Museum component; Nico Cellinese [originally Reed S. Beaman], PI; Steven R Manchester, Gustav Paulay, Norris H Williams, P. Bryan B. Heidorn, Robert P. Guralnick, Neil Davies, Jonathan A. Coddington, Christopher P. Meyer, Thomas M. Orrell and George K. Roderick, Co-PIs for the

- collaborative proposal), National Science Foundation (DEB-0956415), 2010 (\$316,136; as part of a collaborative proposal totaling \$1,799,472).
- 2009 **PI:** Survey of Mesophotic Coral Ecosystems in the Papahānaumokuākea Marine National Monument. National Oceanic and Atmospheric Administration (NOAA), 1 September 2009 (\$70,000).
- 2009 **Co-PI:** Holistic management of coastal ecosystems: roles of deep hermatypic reefs (Kenneth R. Longenecker, PI), Hawaii Undersea Research Laboratory (HURL). 1 June 2009 (\$136,367).
- 2009 **Subcontract:** Development of the Global Names Usage Bank (GNUB), Global Biodiversity Information Facility (GBIF), 1 January 2009. (\$5,000).
- 2009 **PI:** Development of a Species Portal for Pacific Islands (Year 3), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 November 2008. (\$70,000).
- 2008 **Subaward PI:** Deep Reef Survey component of the Moorea Biocode Project (Neil Davies, PI), Gordon and Betty Moore Foundation, 1 January 2008. (\$46,834).
- 2008 **PI:** Development of a Species Portal for Pacific Islands (Year 2), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 November 2008. (\$100,000).
- 2007 **Contract:** ZooBank LSID and TAPIR Implementations. International Commission on Zoological Nomenclature (ICZN), through Global Biodiversity Information Facility (GBIF), 31 May 2007. (\$5,000).
- 2007 **Partner Researcher:** Providing Access to Authoritative New Names: the Zootaxa-ZooBank Interface (Zhi-Qiang Zhang, PI), Global Biodiversity Information Facility (GBIF), 1 April 2007. (\$49,000).
- 2007 **Lead PI:** CRES 2007: Investigating the Deep (50-100 m) Coral Reefs of Hawai'i. Coral Reef Ecosystem Studies (CRES), National Oceanic and Atmospheric Administration (NOAA), 11 Nov 2006. (\$1,499,961).
- 2007 **Co-PI:** Comparing Hawaii's Deep Reef Coral Communities (Anthony Montgomery, PI), Hawaii Undersea Research Laboratory (HURL). 1 October 2007 (\$72,279).
- 2007 **PI:** Development of a Species Portal for Pacific Islands (Year 1), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2007 (\$100,000).
- 2007 **Co-PI:** Catalog of Fishes 2.0: Improving Services and Preparing for Community Participation (Stan Blum, PI), National Science Foundation (NSF DBI-0642321). 15 April 2007 (\$642,461)
- 2006 **Co-PI:** Development of geographic, taxonomic, specimen, and image data for online access (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2006 (\$120,000).
- 2005 **Co-PI:** Development of geographic, taxonomic, specimen, and image data for online access (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2005 (\$150,000).
- 2004 **Co-PI:** Development of geographic, taxonomic, specimen, and image data for online access, including Collaboration on the Development of a Pacific Biodiversity Information Forum and Survey of Taxonomic Capacity in Pacific Islands (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2004 (\$175,000).
- 2003 **Co-PI:** Exploration of the deep slopes of the US Line and Phoenix Islands to investigate the biogeography of deepwater fish and corals, and identify paleo-shorelines (Frank A. Parrish,

- PI), NOAA's Undersea Research Program (NURP). (\$5,000, plus 10 PISCES IV/V submersible dives).
- 2003 **Co-PI:** Continued Development of an Information Utility Focused on Hawaii and the Pacific Region Using Bishop Museum's Vouchered Collections and Documented Data (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2003 (\$150,000).
- 2002 **Co-PI:** Development of an Information Utility Focused on Hawaii and the Pacific Region Using Bishop Museum's Vouchered Collections and Documented Data (Allen Allison, PI), Pacific Basin Information Node (PBIN) of the National Biological Information Infrastructure (NBII). 1 October 2002 (\$150,000).
- 1999 **PI:** Doctoral Fellowship Award for the Systematic and Biogeographic analysis of the Fish Family Pomacanthidae (administered through the Department of Zoology, University of Hawaii). (\$30,000).
- 1998 **Co-PI:** Preparation of Bishop Museum Marine Invertebrates Catalogues and Species Listings for Publication on the World Wide Web. (Steve L. Coles, PI), Charles H. and Margaret B. Edmondson Research Foundation Research Fund.
- 1991 Student Travel Award, American Society of Ichthyologists and Herpetologists, 73rd Annual Meeting, University of Texas at Austin, Texas (\$200).

Approved but not Funded:

- 2003 PBI: Global Inventory of 75 Families of Coral-Reef Actinopterygian (Ray-Finned) Fishes (John E. Randall, PI), Planetary Biodiversity Inventories (PBI), Biodiversity Surveys & Inventories (BS&I), Division of Environmental Biology (DEB), National Science Foundation (NSF). (\$7,457,882).

Awards and Honors:

- 2005 NOGI Award for Science Diving, Academy of Underwater Arts and Sciences
- 2004 "GEnius Award", *Esquire* Magazine (\$45,000)
- 2004 "Best and Brightest", *Esquire* Magazine
- 1996 Finalist, Rolex Awards for Enterprise
- 1994 Honorable Mention, Stoye Award, American Society of Ichthyologists and Herpetologists, 74th Annual Meeting, University of Southern California, Los Angeles, California
- 1993 Best Paper Award, 19th Annual Albert L. Tester Memorial Symposium, University of Hawaii at Manoa (\$700).

DIVING QUALIFICATIONS:

Certifications:

- 2000 IANTD Cis-Lunar Technical Rebreather Instructor (#2846)
- 1999 IANTD Cis-Lunar Mixed Gas Rebreather Instructor (#2846)
- 1999 IANTD Advanced EANx Instructor (#2846)
- 1997 IANTD Cis-Lunar MK-5P Supervisor (#2846)
- 1996 DAN Oxygen Provider (#2846)
- 1994 Cis-Lunar MK-4P Experimental Diver
- 1994 IANTD Trimix Diver (#345)
- 1993 IANTD Nitrox Diver (#2347)
- 1982 PADI Advanced Open Water Diver (#813214240)
- 1981 PADI Basic Diver

Experience:

- 1994–present 4,000+ hours – Mixed-gas, Closed-Circuit Rebreather
- 1989–present 250+ dives – open-circuit trimix/nitrox
- 1981–present 5,000+ dives – air SCUBA

FIELD EXPEDITIONS:

- 1980 Christmas Island, Kiribati
- 1983 Palau (twice); Pohnpei
- 1984 Christmas Island, Kiribati (twice)
- 1985 Christmas Island, Kiribati
- 1986 Palau (twice)
- 1987 Christmas Island, Kiribati (twice)
- 1988 Christmas Island, Kiribati (twice); Guam; Pohnpei; Johnston Atoll
- 1989 Christmas Island, Kiribati; Midway Atoll; Rarotonga
- 1990 Mauritius; Ogasawara Islands; Izu (Japan); Guam
- 1991 Easter Island; Midway Atoll; Rarotonga
- 1992 Kerama Islands; Ogasawara Islands; Rarotonga
- 1993 Solomon Islands
- 1995 Papua New Guinea (Milne Bay)
- 1997 Palau (<http://www.bishopmuseum.org/research/treks/palautz97/>); Hong Kong
- 1998 Papua New Guinea (D'Entrecasteaux Islands); Necker Island
- 2000 Black coral Survey off Maui (in conjunction with NOAA)
- 2001 Fiji (<http://www.coralfilm.com>), American Samoa (<http://www2.bishopmuseum.org/PBS/samoatz01/>)
- 2002 Fiji
- 2004 Fiji
- 2005 Green Island (Taiwan); Pulley Ridge, Gulf of Mexico; Christmas Island, Kiribati
- 2006 Espiritu Santo (Vanuatu)
- 2007 Caroline Islands (Chuuk, Puluwat, Grey Feather Bank, Fais, Ulithi, Yap, Kayangel, Palau Islands)
- 2009 Papua New Guinea (Kamiali); Northwestern Hawaiian Islands (Nihoa Island, Necker Island, Laysan Island, Pearl and Hermes Reef, Kure Atoll, Midway Atoll)
- 2010 Fiji; Cayman Islands; Eilat (Red Sea); Northwestern Hawaiian Islands (Nihoa Island, French Frigate Shoals, Pearl and Hermes Reef, Midway Atoll); Maui
- 2011 Maui; South Africa (Sodwana Bay); Northwestern Hawaiian Islands (Nihoa Island, French Frigate Shoals, Lisianski, Laysan, Gardiner Pinnacles, Pearl and Hermes Reef); Cocos Island
- 2012 Moorea; Indonesia; Cook Islands (Rarotonga); Northwestern Hawaiian Islands (Nihoa, French Frigate Shoals, Maro Reef, Pearl and Hermes Reef, Midway Atoll)
- 2013 Oahu (HURL collaboration); Philippines
- 2014 Philippines; Pohnpei; Northwestern Hawaiian Islands (Kaula Rock, French Frigate Shoals, Lisianski, Pearl and Hermes Reef, Midway Atoll)
- 2015 Pohnpei, Northwestern Hawaiian Islands (), Maui/Hawaii
- 2016 Northwestern Hawaiian Islands; Pohnpei, Lehua, Midway
- 2017 American Samoa

PUBLISHED INTERVIEWS, PROFILES, AND BIOGRAPHIC EXCERPTS:

1. Kawai, Tadashi. 1989. Profile of Randall Kosaki and Richard Pyle. *Tropical Marine Aquarium Magazine* 25:38–39, 2 figs. (In Japanese)
2. Kawai, Tadashi. 1990. Interview with Richard Pyle. *Tropical Marine Aquarium Magazine* 28:40–41, 3 figs. (In Japanese)
3. Gilliam, B. 1992. Bishop Museum Deep Project, Hawaii. p. 154–156. *In: Deep Diving: An Advanced Guide to Physiology, Procedures and Systems.* (Gilliam, B., R. Von Maier, J. Crea, and D. Webb, eds). Watersport Publishing, Inc., San Diego. 255 pp.
4. Somers, L.H. 1992. Chapter 18. Looking Ahead: Mixed Gas in Scientific Diving. *In: Mount, T. and B. Gilliam (Eds.). Mixed Gas Diving: The Ultimate Challenge for Technical Diving.* Watersport Publishing, Inc., San Diego. 392 pp.
5. Silverstein, Joel. 1995. Richard Pyle Ph.D. (Phish Doctor): an exclusive interview. *Sub Aqua Journal.* 5(2):16–19, 4 figs.
6. Kelly, Jim. Is deep air dead? *AquaCorps*, 13:39–44.
7. Ambrose, Greg. 1996. Breathe Deep: Isle divers test new gear that recycles air, allowing them to probe deeper and stay longer. *Honolulu Star Bulletin* April 3, 1996:A-1,A-8. (Related articles: Ambrose, Greg. 1996. Rebreather opens up a new ocean frontier. *Honolulu Star Bulletin* April 3, 1996:A-8; Ambrose, Greg. 1996. ‘Twilight Zone’ yields to crystal clear waters. *Honolulu Star Bulletin* April 3, 1996:A–8.)
8. Comper, Walter and Win Remley. 1996. Rebreather roundtable: DeepTech and seven industry experts take a hard look at rebreather safety issues and training standards. *DeepTech* 5:48–56.
9. Montres Rolex S.A. 1996. Richard Pyle, United States. Project: Investigate biodiversity in the undersea Twilight Zone (Exploration and Discovery). P. 146–147. *In: Spirit of Enterprise: The 1996 Rolex Awards.* Secretariat of the Rolex Awards for Enterprise, Geneva, Switzerland.191 pp.
10. Halstead, B. 1996. Hi-Tek Adventure. *Scuba Diver*, September/October 1996: 61–64.
11. Watt, J.D. 1997. Exploring the Twilight Zone with Richard Pyle. *SCUBA Times* 18(6) No. 104: 64.
12. Barskey, S., M. Thurlow, and M. Ward. 1998. Mention on pp. 42–43, of Chapter 2: Applications for Rebreathers. *In: The Simple Guide to Rebreather Diving.* Best Publishing Company, Flagstaff. xxvi + 228 pp.
13. Donnelly, D. 1998. Hawaii: This Pyle no Gomer. *Honolulu Star Bulletin* April 8, 1998:C–16.
14. TenBruggencate, J. 1998. Unknown fish swims into sight. *The Honolulu Advertiser* June 10, 1998:A–1.
15. TenBruggencate, J. 1998. Hawaii’s Environment: Divers still discovering new species. *The Honolulu Advertiser* June 15, 1998:B–1.
16. Menduno, M. 1998. A fish nerd’s journey into the Twilight Zone. *Aqua* 1(4):70–73, 132–133.
17. Tanaka, H. 1998. Jack Fruits and Rich Flavors from Hawaii. The Firefishes: *Nemateleotris decora*, *helfrichi* and *magnifica*. *Fish Magazine.* No. 393 (December 1998): 123–125, 130–135. In Japanese.
18. Allen, G.R., R. Steene, and M. Allen. 1998. Exploring the “Twilight Zone”. pp. 4–6. *In: A Guide to Angelfishes and Butterflyfishes.* Odyssey Publishing/Tropical Reef Research, Perth. 250 pp.
19. Tanaka, H. 1999. Jack Fruits and Rich Flavors from Hawaii No. 2: Rich Fauna of Hawaii. *Fish Magazine.* No. 395 (February 1999): 132–135, 138–139. In Japanese.
20. Houston, Robert. 2001. Achievers: Into the Twilight Zone. *Action Asia Magazine*, June/July 2001:40–43.

21. Almgoy, B. 2001 (17 February). אל תוך אזור הדמדומים [Into the Twilight Zone]. מתוך מגזין [Out Magazine] No. 28. (<http://mag.diving.org.il/?p=169>) [In Hebrew].
22. Stephens, J. 2003. Into the Twilight Zone. pp. 87–96 In: *Living Mirrors: A Coral Reef Adventure*. Umbrage Editions, New York.
23. Hall, Howard and Michele Hall. 2003. Sixty Fathoms Under the Sea. National Wildlife: World Addition 41(3):52-56.
24. Fathoms Magazine, Winter 2003
25. Anonymous, 2003. Lights, Camera, Dive! One Fish, Two Fish. Ranger Rick Magazine. pp. 38–39.
26. Paul, Melanie. 2004. On the record with Richard Pyle. *Nitrox Diver*. Summer, 2004. 14–17.
27. America's Best and Brightest: Richard Pyle, extreme diver. *Esquire Magazine* December 2004.
28. Boruchowitz, David E. 2005. Richard Pyle, PhD—Aquarist, Ichthyologist...Movie Star! *Tropical Fish Hobbyist* 54(1).
29. Waikiki Aquarium Newsletter
30. Kimura, Rufus 2009. Into the Twilight Zone. *Hana Hou! The Magazine of Hawaiian Airlines*, 12(1):43–47.
31. Nelson, Shane 2008. Delving Deeper: Scientists get an unprecedented look at Hawaii's reefs. *Honolulu Magazine*, March 2008, p. 42.
<http://www.honolulumagazine.com/Honolulu-Magazine/March-2008/Delving-Deeper/>
32. Earle, S.A. and L.K. Glover. 2009. Chapter 5. Pacific Ocean. pp.142–181 [R.L. Pyle feature on p. 176]. In: Earle, S.A. & L.K. Glover (eds.). *Ocean: An Illustrated Atlas*. National Geographic Society, Washington, DC. 352 pp. (ISBN: 978-1-4262-0319-0)
33. Crist, D.T., G. Sowcroft & J.M. Harding. 2009. Where no one has gone before. pp. 185–186. In: Crist, D.T., G. Sowcroft & J.M. Harding (eds.). *World Ocean Census: A Global Survey of Marine Life*. Firefly Books, Ltd., Buffalo, New York. 256 pp. (ISBN-13: 978-1-55407-434-1; ISBN-10: 1-55407-434-7)
34. Walters, Pat. 2010. Mammoth Project to Digitize the Tree of Life Could Uncover Thousands of New Species. *Popular Science*. February 2010:27.
35. auf dem Kampe, Jörn. 2011. Porträt: Im Rausch der Riffe. *GEO Magazine*. 11:64–70.
36. Kamida, David. 2011. Natural Science: Diving the depths of Maui. *Ka'Elele: The Messenger. The Journal of Bernice Pauahi Bishop Museum*. Summer 2011:10–11.
37. Shapiro, Michael. 2012. Moorea's Ark. *Hana Hou! The Magazine of Hawaiian Airlines*, 15(4):62–73.
38. Steene, Roger
39. Weiss, Kenneth R. 2016. The Far Atolls: Twenty-five days in the Papahānaumokuākea Marine National Monument. *Hana Hou!* 19.4 (August/September): 110–125.
<http://hanahou.us/issues/19.4/feat-nw-hawn-islands.html>
40. Weiss, Kenneth R. 2017. Naturalist Richard Pyle explores the mysterious, dimly lit realm of deep coral reefs. *Science* 355(6328): 900–904.
<http://www.sciencemag.org/news/2017/03/naturalist-richard-pyle-explores-mysterious-dimly-lit-realm-deep-coral-reefs>
41. Frerck, Bob. 2017. Richard Pyle Explores Mysterious, Deep Coral Reefs. Blue Ocean Network. Mar 11, 2017. <http://blueocean.net/richard-pyle-explores-mysterious-deep-coral-reefs/>
42. Menduno, Michael. 2017. The race to save the greatest library on Earth. Research, Education and Medicine: Researcher Profile. Alert Diver. November 2, 2017. 57-61.
http://www.alertdiver.com/Richard_Pyle

FILM AND RADIO PROJECTS AND INTEVIEWES:

1. **Videographer:** *Pele Meets the Sea*. 1990. LavaVideo Productions. Educational Videotape
2. **Interviewee:** 1992. Thomas Horton Associates, Inc. The Discovery Channel.
3. **Footage:** *World of Wonder: Underwater Volcano* (Episode 113). 1995. GRB Entertainment. The Learning Channel.
4. **Technician:** *Sea Tek: Rebreathers segment*. 1996. GRB Entertainment. The Learning Channel.
5. **Footage:** *Sea Tek: Birth of an Island*. 1996. GRB Entertainment. The Learning Channel.
6. **Feature, Footage:** *Incredible Frontiers-I Extreme Divers: Lava Divers*. 1997. GRB Entertainment. The Learning Channel.
7. **Footage:** *Oceans: Episode I*. 1997. The Discovery Channel.
8. **Footage:** *Oceanarium – An Edutainment Project*. 1997. Intenational Tourist Attractions, Israel.
9. **Footage:** *Planet of Ocean, Episode 2: Into the Abyss*. 1998. NHK.
10. **Feature:** *Mysteries of the Twilight Zone*. 1998. Thomas Lucas Productions. The Discovery Channel/National Geographic.
11. **Technician, Videographer:** *Hammeheads: Nomads of the Sea*. 1998. Thomas Lucas Productions. The Discovery Channel.
12. **Interviewee:** *Hawaiian Diving Adventures: Midway Atoll*. 1998. Cal Hirai and Kimo Santos. Oceanic Cable Channel 16.
13. **Feature:** *Hawaiian Diving Adventures: Midway Atoll*. 1998. Cal Hirai and Kimo Santos. Oceanic Cable Channel 16.
14. **Feature:** Footage: *How'd They Do That?: Lava Divers segment*. 1998. The Learning Channel.
15. **Footage:** *Savage Earth*. 1998. Granada Television. PBS/ITV Network.
16. **Footage:** *Visual Earth: Exploring the Oceans*. 1998. TERC. CD-ROM production.
17. **Technician:** *Reflections* (underwater HDTV video production featuring musician Paul Gillman with dolphins). 1999.
18. **Footage:** *Volcanoes of the Deep*. 1999. Paula S. Apsell, NOVA/WGBH.
19. **Feature:** *Aquanauts: New Species*. 1999. The Learning Channel.
20. **Feature:** *Aquanauts: Volcanoes*. 1999. The Learning Channel.
21. **Footage:** *Savage Planet*. 1999. Granada Television. PBS/ITV Network.
22. **Footage:** *Restless Earth*. 1999. Fulcrum Productions.
23. **Footage:** *Volcanoes Video*. 1999. Auckland Museum.
24. **Footage:** *A Walk to Red Rocks*. 1999. DMP Films.
25. **Footage:** *If We Had No Moon*. 2000. York Films. Discovery Channel.
26. **Footage:** *Hawaii: Fire from the Sea*. 2000. Chrisman Films.
27. **Footage:** *Firewalkers*. 2000. Parallax Films.
28. **Feature, Footage:** *Xtreme Machines*. 2001. Pioneer Productions. Discovery Channel.
29. **Feature, Footage:** *Volcano*. 2001. Pioneer Productions. Discovery Channel.
30. **Host Researcher, Footage:** *JASON XII*. 2001. Media Arts. Jason Project.
31. **Feature:** *Enduring Extremes*. 2001. Wall to Wall Television. Discovery Health Channel.
32. **Feature:** *Coral Reef Adventure*. 2003. MacGillivray Freeman Films. IMAX feature film (<http://www.coralfilm.com>)
33. **Feature, Footage, Producer:** *Rebreather FUNDamentals*. 2003. Gallant Aquatic Ventures, Incorporated / International Association of Nitrox and Technical Divers.
34. **Producer & Editor:** *Uncharted Waters*. Association for Marine Exploration.
35. **Feature:** *Expedition Pacific Abyss*. 2007. British Broadcasting Corporation (BBC). Discovery Channel. 14 October 2007

36. **Feature:** *Pacific Abyss*. 2008. British Broadcasting Corporation (BBC).
37. **Support:** *Kilauea: Mountain of Fire*. 29 March 2009. Nature, PBS.
(<http://video.pbs.org/video/1133372360/>; <http://www.pbs.org/wnet/nature/kilauea-mountain-of-fire-video-full-episode/4825/>)
38. **Feature:** [Educational DVD thingy]
39. **Advisor:** *One World Ocean*. MacGillivray Freeman Films.
40. **Feature:** *Dinofish*, 2012. Earth-Touch (PTY) Ltd., National Geographic. 1 April 2012.
41. **Feature:** *DeepSee Synergy*, 2012. Howard Hall Productions, 15 August 2012
(<https://vimeo.com/47595340>)
42. **Feature:** *Nature's Greatest Secret: The Coral Triangle. Episode 1 – A Deep Secret*. Wild Fury. International Broadcast. August 2013 (<http://vimeo.com/107782561> [Trailer])
43. **Feature:** *Ocean Mysteries with Jeff Corwin* ABC television. Season 3, episode 307. November 2013.
44. **Interviewee:** Bytemarks Café. Episode 313: Diving into the Twilight Zone. 27 August 2014.
(<http://www.bytemarkscafe.org/2014/08/27/episode-313-diving-into-the-twilight-zone/>)
45. **Interviewee:** Hawaii's Aquarium Fishery: Regulated, Valuable, Sustainable. 20 November 2016 (<https://youtu.be/50L6JcMOVLQ>)
46. **Feature:** *Sea of Hope*. National Geographic Society. 15 January 2017.

PUBLIC PRESENTATIONS:

Scientific and Technical (Invited):

1. **Invited Panelist:** Evacuation and Treatment Panel (45 min), *tek.93: An Emerging Dive Technologies Conference*, 18–19 January 1993, Orlando, Florida. R.W. Bill Hamilton, Chair. (Sponsored by *AquaCorps* technical journal)
2. **Invited Panelist:** Tech Ops: A Tutorial on Technical Diving (60 min), *tek.93: An Emerging Dive Technologies Conference*, 18–19 January 1993, Orlando, Florida. John Crea, Chair. (Sponsored by *AquaCorps* technical journal)
3. **Invited Panelist:** Medical, Academic, & Government Institutions Panel (60 min), *The Deep Diving Forum: A Question of – How Deep is Safe?*, 20 January 1993, Orlando, Florida. R.W. Bill Hamilton, Chair. (Sponsored by the Scuba Diving Resource Group)
4. **Invited Speaker:** Using Trimix to explore the Twilight Zone (25 min), *Diving Technologies Conference and Exhibition (tek.94)*, 19–23 January 1994, New Orleans, Louisiana. (Sponsored by *AquaCorps* technical journal)
5. **Invited Session Chair:** In-water Recompression as an emergency treatment for decompression illness (60 min), *Diving Technologies Conference and Exhibition (tek.94)*, 19–23 January 1994, New Orleans, Louisiana. (Sponsored by *AquaCorps* Magazine)
6. **Invited Speaker:** The potential uses of closed-circuit rebreathers in marine biological research (25 min), *AquaCorps Rebreather Forum*, 20–25 May 1994, Key West, Florida. (Sponsored by *AquaCorps* technical journal)
7. **Invited Speaker:** Systematics of reef and shore fishes of Oceania (30 min), *Marine and Coastal Biodiversity in the Tropical Island Pacific Region: I. Species Systematics and Information Management Priorities*, 2–4 November 1994, East-West Center, Honolulu, Hawaii. (Sponsored by the Ocean Policy Institute of the Pacific Forum/CSIS)
8. **Invited Speaker:** Patterns of coral reef fish biogeography in the Pacific region (30 min). *Marine and Coastal Biodiversity in the Tropical Island Pacific Region: I. Species Systematics and Information Management Priorities*, 7–9 November 1994, East-West

- Center, Honolulu, Hawaii. (Sponsored by the Ocean Policy Institute of the Pacific Forum/CSIS)
9. **Invited Panelist:** Deep Air (60 min), Diver Safety Session, *Dive into the Future: The Dive Technologies Conference & Exhibition (tek.95)*, 21–24 January 1995, Moscone Center, San Francisco, California. Hal Watts, Chair. (Sponsored by Imbert, Ciesielski, & Fructus)
 10. **Invited Session Co-chair:** Gearing Up (60 min), *Dive into the Future: The Dive Technologies Conference & Exhibition (tek.95)*, 21–24 January 1995, Moscone Center, San Francisco, California. Gary Gentile, Co-Chair. (Sponsored by *Scuba Times Magazine*)
 11. **Invited Speaker:** Exploring the Twilight Zone (30 min), *Dive into the Future: The Dive Technologies Conference & Exhibition (tek.95)*, 21–24 January 1995, Moscone Center, San Francisco, California. (Sponsored by *AquaCorps* technical journal)
 12. **Invited Session Chair:** In-water Recompression (60 min), *Diver Safety: The Dive Technologies Conference & Exhibition (tek.95)*, 21–24 January 1995, Moscone Center, San Francisco, California. (Sponsored by Imbert, Ciesielski, & Fructus)
 13. **Invited Panelist:** Dive Into the Internet (60 min), *Dive into the Future: The Dive Technologies Conference & Exhibition (tek.95)*, 21–24 January 1995, Moscone Center, San Francisco, California. David Story, Chair. (Sponsored by *AquaCorps* technical journal)
 14. **Invited Speaker:** The use of nitrox in closed circuit rebreathers for scientific purposes (45 min), *American Academy of Underwater Sciences Nitrox Diving Workshop*, 30 September – 4 October 1995, Wrigley Marine Science Center, Catalina Island, California (Sponsored by the American Academy of Underwater Sciences)
 15. **Invited Speaker:** Using closed-circuit, mixed gas rebreathers to explore the Twilight Zone (30 min), *Diving Technologies Conference and Exhibition (tek.96)*, 12–16 January 1996, Ernest K. Morial Convention Centre, New Orleans, Louisiana. (Sponsored by *AquaCorps* technical journal)
 16. **Invited Panelist:** Deep Diving Forum (120 min), *Diving Technologies Conference and Exhibition (tek.96)*, 12–16 January 1996, Ernest K. Morial Convention Centre, New Orleans, Louisiana. R.W. Hamilton, Chair. (Sponsored by *AquaCorps* technical journal)
 17. **Invited Panelist:** Understanding Trimix Tables (60 min), *Diving Technologies Conference and Exhibition (tek.96)*, 12–16 January 1996, Ernest K. Morial Convention Centre, New Orleans, Louisiana. R.W. Hamilton, Chair. (Sponsored by *AquaCorps* technical journal)
 18. **Invited Panelist:** Future of Rebreathers (60 min), *Diving Technologies Conference and Exhibition (tek.96)*, 12–16 January 1996, Ernest K. Morial Convention Centre, New Orleans, Louisiana. Michael Menduno, Chair. (Sponsored by *AquaCorps* technical journal)
 19. **Invited Panelist:** Rebreather Maintenance & Logistics (60 min), *Rebreather Forum 2.0*. 26–28 September, 1996. Redondo Beach, CA.
 20. **Invited Speaker:** Using Mixed-Gas Closed-Circuit rebreathers for deep decompression diving. End User Operational Experience (90 min), *Rebreather Forum 2.0*. 26–28 September, 1996. Redondo Beach, CA.
 21. **Invited Speaker:** Keeping up with the times: Technical diving practices for in-water recompression (45 min). In-Water Recompression: A symposium and Workshop. *Undersea and Hyperbaric Medical Society Annual Scientific Meeting*. 24 May 1998. Seattle, Washington.
 22. **Invited Seminar Speaker:** Using advanced diving technology to explore the deep coral reefs (60 min.), 17 December 1998, *Bodega Marine Laboratory*, University of California – Davis. (Sponsored by the Bodega Marine Laboratory)

23. **Invited Speaker:** In Water Recompression (35 min.), 24 April 1999, *OZTeK99 – Diving Technologies & Rebreather Forum*, Australian National Maritime Museum, Sydney, Australia. (Sponsored by OZTeK99)
24. **Invited Featured Evening Lecture Speaker:** Deep Reef Explorations (45 min.), 24 April 1999, *OZTeK99 – Diving Technologies & Rebreather Forum*, Australian National Maritime Museum, Sydney, Australia. (Sponsored by OZTeK99)
25. **Invited Speaker and Panelist:** Mixed Gas Closed Circuit Rebreather Use for Identification of New Reef Fish Species from 200–400 fsw (40 min), 3 November 1999, Technical Diving Forum: Assessment and feasibility of Technical Diving Operations for Scientific Exploration. *American Academy of Underwater Sciences Workshop*, West Coast Santa Cruz Hotel, Santa Cruz, California.
26. **Invited Speaker:** Using Advanced Diving Technology to Explore the Twilight Zone (60 min), 6 November 1999, *BioForum: Innovative Research in Field Biology*. *California Academy of Sciences*, San Francisco, California.
27. **Invited Symposium Speaker:** How Many Reef Fishes are we Missing?: Patterns of New Species Discovery on Deep Coral Reefs in the Indo-Pacific (15 min), *American Society of Ichthyologists and Herpetologists*, 80th Annual Meeting, 14–20 June, 2000, Universidad Autonoma De Baja California Sur, La Paz, Mexico.
28. **Invited Participant:** Original Organizing Meeting, All Species Foundation, 18–19 September 2000, California Academy of Sciences, San Francisco, CA.
29. **Invited Speaker:** Insights on Deep Bounce Dive Safety From the Technical Diving Community (20 mins), Panel On Diving Safety, Scientific Session III: Diving Safety, *16th Meeting of the United States-Japan Cooperative Programs on Natural Resources (UJNR)*, 1–3 November 2001, East-West Center, Honolulu, Hawaii.
30. **Invited Session Chair and Presenter:** Surface Logistics and Consumables for Open-Circuit and Closed-Circuit Deep Mixed-Gas Diving Operations (15 minutes), Session 43: Rebreathers, Tools For The Next Generation, *Marine Technology Society/IEEE Oceans 2001*, 5–8 November 2001, Hilton Hawaiian Village, Honolulu, Hawaii.
31. **Invited Presentation:** Hawaii Biological Survey: Taking inventory of the fauna and flora of the Hawaiian Islands. *Biodiversity Informatics Cooperation – Pacific Basin*, 10–12 June 2002, Maui, Hawaii.
32. **Invited Panelist:** E-types Workshop, All Species Foundation, 5–6 November 2002, Smithsonian Institution, Washington, DC.
33. **Invited Speaker:** Exploring Deep Reefs with Closed-Circuit Rebreathers (30 min), 2nd *International Coelacanth Symposium*, 4–7 December 2002, Marathon, Florida. (via telephone)
34. **Invited Joint Presentation** (with Bill Steiner, Mark Fornwall, Lloyd Loupe, Shannon McElvaney, Melia Lane-Kamahele, and Ron Salz): Biodiversity and Information in Hawaii: A Partnership Presentation (90 min), *NBII All Node Meeting*, 6–9 January 2003, Maui, Hawaii.
35. **Invited Speaker:** Empirical Observations Relating To ‘Deep Stops’: A Fish Nerd’s Perspective (30 min), *Deep Stops and Modern Decompression Strategies Workshop*, *National Association of Underwater Instructors (NAUI)*, 22–23 February 2003, Tampa, Florida. (via telephone)
36. **Invited Speaker:** Fishes of the Pacific Region (20 min) 20th Pacific Science Congress: “Science and Technology for Healthy Environments”. 17–21 March 2003, The Sofitel Central Plaza Bangkok Hotel, Bangkok, Thailand. (Delivered by Allen Allison)

37. **Invited Panelist:** Second E-types Workshop, All Species Foundation, 12–14 May 2003, Smithsonian Institution, Washington, DC.
38. **Invited Speaker and Panelist:** Modeling Needs for the All-Species Hawaii Initiative. Biodiversity Modeling Workshop, National Biological Information Infrastructure. 28 July – 1 August 2003, Maui High Performance Computing Center, Kihei, Maui.
39. **Invited Presentation and Discussion:** Taxonomer Schema Explanation (4 hrs). SEEK Taxon Group, 23–28 January 2004, National Center for Ecological Analysis and Synthesis, University of California at Santa Barbara, Santa Barbara, California.
40. **Invited Keynote Speaker:** Banquet presentation (1 hr). Marine Aquarium Conference of North America. 11 September 2004, New England Aquarium, Boston, Massachusetts.
41. **Invited Speaker:** Tapping into an Unexplored Undersea Realm: the Biodiversity of Deep Coral Reefs (20 min), National Marine Educators Association Conference, 14 July 2005, Maui Community College, Kahului, Maui.
<http://www.hawaii.edu/maui/oceania/NMEA05.html>
42. **Invited Moderator:** ECAT Seed Money Prioritization E-Conference, Global Biodiversity Information Facility (GBIF), May 25 – June 1, 2005.
43. **Invited Speaker:** Implementing the Digital Taxonomic Revolution: Strategies for a Successful Web-Based Registry of Taxonomic Names. ZooBank Symposium. 18 December 2005. Annual Meeting of the Entomological Society of America. Ft. Lauderdale, Florida. (via internet) http://www.nhm.ac.uk/hosted_sites/iczn/Fort_Lauderdale_ZB_Symposium.htm
44. **Invited Speaker:** CoML 1.
45. **Invited Participant-**GBIF-GUID 1
46. **Invited Speaker:** CoML 2.
47. **Invited Participant-**GBIF-GUID 2
48. **Invited Speaker:** New Caledonia.
49. **Invited Speaker:** Explorers' Club.
50. **Invited Speaker:** ZooBank Symposium, Smithsonian, May 2007.
51. **Invited Participant:** Overview of *Encyclopedia Pacifica*, ZooBank, CoF, Creefs (10 min). Encyclopedia of Life (EoL) Informatics (Data Model) Workshop. 10–11 February 2007. MBL, Woods Hole, Massachusetts, USA.
52. Mesophotic Coral Ecosystems (NOAA Workshop - Florida)
53. TDWG 2008
54. **Invited Speaker:** ZooBank and the Global Names Architecture. 8 January 2009. Interoperability of Museum, Taxonomic, and DNA Databases. 7–9 January 2009. Database Working Group, Consortium for the Barcode of Life, Field Museum of Natural History, Chicago, Illinois. (20 min)
55. **Invited Speaker:** Exploring Life on the Edge of Darkness. 11 February 2009. Looking for Life: Adventures and Misadventures in Species Exploration. International Institute of Species Exploration (IISE). Arizona State University, Tempe, Arizona. (30 min)
56. **Invited Speaker:** Taxonomy Comes of Technological Age. 2 June 2009. e-Biosphere 09: The International Conference on Biodiversity Informatics. 1–3 June 2009. Queen Elizabeth II Conference Centre, Westminster, London, UK
<http://www.youtube.com/watch?v=PSzL2NwRemU>
57. **Invited Speaker:** ZooBank and the Global Names Architecture. 4–5 June 2009. International Committee on Bionomenclature, Natural History Museum, London, UK.
58. **Invited Participant:** IUCN Red List workshop to assess the extinction risks of Butterflyfishes and Angelfishes. 5–9 October 2009, Global Marine Species Assessment, Biodiversity Assessment Unit, IUCN Species Programme, Georgia Aquarium, Atlanta, Georgia.

59. **Invited Speaker:** The Global Names Architecture: Integration In Action (NOT “Inaction”). 11 November 2010. TDWG (Biodiversity Information Standards) Annual Conference. CORUM Conference Center, Montpellier, France (90 min)
60. **Invited Banquet Speaker:** A Brief History of Deep Coral-Reef Exploration: A Fish-Nerd’s tale. 27 March 2010. American Academy of Underwater Sciences Annual Symposium: “Diving For Science”. Waikiki Aquarium, Honolulu, Hawaii. (40 min)
(<https://youtu.be/gHEHHLnfwNg>)
61. **Invited Speaker:** A History of Cis-Lunar Rebreathers. 15 May 2010. Inner Space Conference. Cayman Islands. (45 min)
62. **Invited Speaker:** Adventures of a Fish Nerd: Learning to Dive Deep the Hard Way. 19 June 2010. The 1st International Technical Scientific Diving Workshop. The Interuniversity Institute for Marine Sciences. Eilat, Israel. (60 min)
63. **Invited Speaker:** Logistical and Practical Considerations for Deep (100m+) Mixed-gas Diving in Remote Locations. 21 June 2010. The 1st International Technical Scientific Diving Workshop. The Interuniversity Institute for Marine Sciences. Eilat, Israel. (60 min)
64. **Invited Speaker:** Undiscovered Biodiversity within Pacific Mesophotic Coral Ecosystems. 23 June 2010. The 1st International Technical Scientific Diving Workshop. The Interuniversity Institute for Marine Sciences. Eilat, Israel. (30 min)
65. **Invited Speaker:** Mesophotic Coral Ecosystems of the Au‘au Channel, Hawai‘i (DeepCRES/Hawaii). 27 August 2010. Site Visit Symposium for the Hawaii Deep-CRES project. NOAA Papahānaumokuākea Marine National Monument Conference Room. Hawaii Kai, Hawaii. (15 min)
66. **Invited Session Chair:** Taxon Names & Concepts (Introduction, 6 Presentations, Discussion session). TDWG (Biodiversity Information Standards) Annual Conference. Woods Hole, MA, 27 September 2010 (105 min)
67. **Invited Speaker:** Mesophotic Coral Ecosystems of the Au‘au Channel, Hawai‘i (DeepCRES/Hawaii). 6 October 2010. Western Pacific Regional Fishery Management Council, 105th Meeting of the Scientific and Statistical Committee. Honolulu, Hawaii. (15 min)
68. **Invited Speaker and Panelist:** Exploring deep coral reefs in the tropical Pacific. 18 October 2010. FishBase Symposium 2010 — Discover! Naturhistoriska riksmuseet. Stockholm, Sweden. (45 min, plus Panel Discussion)
69. **Invited Participant and Committee Member:** IUBS/IUMS International Committee On Nomenclature (ICB): BioCode Working Group Meeting. 21–23 October, 2010. Botanischer Garten und Botanisches Museum Dahlem, Freie Universität Berlin. Berlin, Germany.
70. **Invited Keynote Speaker:** Towards a Global Names Architecture: The Future of Indexing Scientific Names. 28 October 2011. Anchoring Biodiversity Information: From Sherborn to the 21st Century and Beyond. Flett Theatre, The Natural History Museum, London, UK
71. **Invited Speaker:** Endangered: Earth’s Greatest Library. 2 November 2011. TEDx Honolulu. Cupola Theatre at Honolulu Design Center, Honolulu, Hawaii.
<http://www.youtube.com/watch?v=ZRFGUT594ug>
72. **Invited Keynote Speaker:** A Brief History of Everything that Really Matters. 14 November 2011. Life and Literature, 14–15 November 2011. Biodiversity Heritage Library. Field Museum of Natural History, Chicago, Illinois. (60 min)
http://www.lifeandliterature.org/2011/12/life-and-literature-speaker_08.html
73. NOMINA meetings (check all)
74. Public Presentation: Cook Islands.

75. **Invited Keynote Speaker:** British Subaqua Club annual meeting, 27 November 2012. NEC, Birmingham, England. (60 min.)
76. Literature Group – Pro-iBiosphere, February 2013
77. GUIDs – Pro-iBiosphere (15 min)
78. Ellinor presentation - Austria
79. **Invited Speaker:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Marine Biology Seminar, University of Hawaii, 8 March 2013 (60 min.)
80. **Featured lecturer:** Deep Diving Discoveries. Science Alive! Family Sunday, Atherton Halau, Bishop Museum, Honolulu, Hawaii. 17 March 2013 (40 min.)
81. **Invited Speaker:** Fishing the Twilight Zone: A Panoply of Nerdry. Honolulu Nerd Nite #3. Mercury Bar, Honolulu, Hawaii. 10 April 2013 (25 min)
82. Pro-iBiosphere (Berlin), May 2013 [http://wiki.pro-ibiosphere.eu/wiki/Workshops_Berlin,_May_2013]
83. **Invited Participant:** AntCat Technical Workshop (including presentation on the Global Names Architecture). Romberg Tiburon Center, San Francisco, California. 25-26 August 2013.
84. **Presentation:** The Global Names Architecture. California Academy of Sciences, San Francisco, California. 27 August 2013 (25 min)
85. **Invited Participant:** AntCat Editorial Workshop (including presentation on the Global Names Architecture). Romberg Tiburon Center, San Francisco, California. 29–30 August 2013 (20 min)
86. **Invited Speaker:** Why do we explore? The importance of discovering and documenting biodiversity. NOAA Marine Science Educators conference. Waikiki Aquarium, Honolulu, Hawaii. 18 October 2013 (20 min)
87. **TDWG 2013 Organizer**
88. **TDWG 2013 Presentation**
89. **Singapore**
90. Ellinor presentation - DC
91. **Manila**
92. **Invited Lecturer:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Guest Lecture for Marine Biology Course. University of Hawaii at Manoa, St. John Hall, room 011. 1 April 2014. (1 hour)
93. **Invited Speaker:** In-Water Recompression: Where Have We Been; Where Are We Going? In Water Recompression Controversies Symposium, Kona Kai Resort, San Diego, California. 28 April 2014. (30 mins)
94. **Co-Authored Presentation:** (presented by Ellinor Michel). Global Digital Infrastructure for Biological Nomenclature and Taxonomy. Forum Herbulot 2014: How to accelerate the inventory of biodiversity.
95. **Invited Presentation:** (presented by Ellinor Michel). Global Digital Infrastructure for Biological Nomenclature and Taxonomy. (<http://www.slideshare.net/EllinorM/michel-digital-nomenclaturegnazoobank2014conamesconfv2>)
96. **Invited Speaker:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Natural Sciences Annex, Room 101, University of California, Santa Cruz, California.. 22 October 2014. (1 hour, 60 people)
97. **Invited Speaker:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Conference Room, California Academy of Sciences, San Francisco, California. 23 October 2014. (1 hour, 40 people)

98. **Workshop Participant and Presenter:** Biocollections Identifiers Workshop. Swedish Museum of Natural History, Stockholm, Sweden. 24–25 October 2014. (2 days,)
99. **Workshop Session Chair:** Darwin Core Workshop: Nomenclature in Darwin Core. TDWG – Biodiversity Information Standards. Elmia Congress Centre, Jönköping, Sweden. 28 October 2014 (90 min, 60 people)
100. **Invited Speaker and Panelist:** Why Technology Makes Rebreathers the Norm and Not the Exception. Divers Equipment and Marketing Association (DEMA), Las Vegas Convention Center, Las Vegas, Nevada (Room N242). 20 November 2014. (1 hour, 25 people)
101. **Invited Speaker:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Special Science Seminar, Natural History Museum, London (Flett Events Theatre). 14 January 2015. (1 hour; 80 people) <http://youtu.be/8cUnkz9wSCU>
102. **Invited Speaker:** The ZooBank Experience. The Future of Digital Nomenclature – an ‘ICDN’? (NOMINA 14) International Committee for Bionomenclature Meeting. Mineralogy Meeting Room (Earth Science Building), Natural History Museum, London. 15 January 2015. (2.5 hours; 9 people)
103. **Invited Speaker:** Rebreather Evolution in the Foreseeable Future. Rebreathers and Scientific Diving Training Workshop, Wriggly Marine Science Center, University of Southern California, Catalina Island. 16 February 2015 (30 minutes, 50 people)
104. **Invited Speaker:** Use of Rebreathers for Biological Research and Remote Field Operations. Rebreathers and Scientific Diving Training Workshop, Wriggly Marine Science Center, University of Southern California, Catalina Island. 17 February 2015 (60 minutes, 50 people)
105. **Invited Presenter:** Overview of Poseidon SE7EN Rebreather, hands-on session. Rebreathers and Scientific Diving Training Workshop, Wriggly Marine Science Center, University of Southern California, Catalina Island. 17 February 2015 (30 minutes, 50 people)
106. **Invited Presenter:** Deep Diving, New Species Discovery, and the Greatest Library on Earth. Sustainable Oceans Summit, McDonough School of Business, Rafik B. Hariri Building, Georgetown University, Washington, D.C. 25 April 2015 (12 minutes, 200 people)
107. **Invited Presenter and Participant:** ZooBank. Global Registry of Biodiversity Repositories: Designing GRBio Version 2, U.S. National Museum of Natural History, Smithsonian Institution, Washington, DC. 27-28 April 2015 (10 minutes, 21 people)
108. **Invited Presentation:** Update on the status of ZooBank. International Committee on Bionomenclature. 32nd International Union of Biological Sciences General Assembly & Conference in Berlin 14 December 2015 (15 min, 15 people)
109. **Invited Presentation:** ZooBank, Registration & the Digital Future for Nomenclature. BioNomenclature: Making nomenclatural codes, concepts and tools fit for modern research. 32nd International Union of Biological Sciences General Assembly & Conference in Berlin 15 December 2015 (20 min, 60 people)
110. **Invited Presentation:** ZooBank Status. International Commission on Zoological Nomenclature. 32nd International Union of Biological Sciences General Assembly & Conference in Berlin 16 December 2015 (120 min, 16 people)
111. **Invited Presentation and Symposium Organizer:** The Habitat Persistence Hypothesis. Mesophotic and Deep-Sea Coral Ecosystems: A Tribute to the Pioneering Efforts of Dr. John Rooney, 13th International Coral Reef Symposium, Honolulu, 21 June 2016 (15 min, 120 people). (<https://youtu.be/N4-8tlh5fC0>)
112. **Guest Lecturer:** Documenting the Global Biodiversity Library: Explorations and Discoveries on Deep Coral Reefs. Hawaii Pacific University, Hawaii Loa campus, Kailua. 6 October 2016. (60 min; 45 people).

113. **Invited Participant:** Names in November
114. **Invited Participant:** Update on the ICZN and ZooBank. American Association for Zoological Nomenclature (AAZN). Washington, DC, 12 December 2016 (Remote Participation via telephone) (15 min, 12 people).
115. **Invited Presentation:** Documenting the Global Biodiversity Library: Explorations and Discoveries on Deep Coral Reefs. U.S. National Museum of Natural History, Smithsonian Institution, Washington, D.C. 6 January 2017 (60 mins, 100 people)
116. American Samoa presentation
117. **Woods Hole presentation (Remsen)**
118. **Woods Hole presentation (rebreather)**
119. **PechaKucha**
120. **Invited Presentation:** Exploring deep coral reefs with high-tech SCUBA. University of the Ryukyus, Okinawa. 17 November 2017 (30 mins, 25 people)
121. **Invited Presentation:** Physics and “Fizzyology”: The Battle of the Bends in Deep-Sea Diving. Nerd Nite: Bishop Museum Takeover! Anna O’Brien’s, Honolulu, Hawaii. 6 March 2018 (20 mins, 150 people)
122. **Invited Panelist:** Expert Panel Discussion & Film Screening for “Chasing Coral” documentary. The Global Issues Network 2018 Conference, Le Jardin Academy, Kailua, Hawaii. 9 March 2018 (60 mins, 200 people)
123. **Invited Presentation:** Exploring the uniqueness of Marine Biodiversity in the Hawaiian Archipelago: Workshop on Ocean Health and Biodiversity. The Global Issues Network 2018 Conference, Le Jardin Academy, Kailua, Hawaii. 11 March 2018 (40 mins x 2 workshops, 50 people total)

Scientific and Technical (Other):

124. **Presenter:** Deep Thoughts: Comments on the use of Trimix for exploring the ‘Twilight Zone’, American Society of Ichthyologists and Herpetologists, 71st Annual Meeting, 15–20 June 1991, New York, New York.
125. **Presenter:** Using Nitrox to extend bottom times for moderate-depth SCUBA dives (12 min), American Society of Ichthyologists and Herpetologists, 71st Annual Meeting, 15–20 June 1991, New York, New York.
126. **Presenter:** Probing the ‘Twilight Zone’: Investigating Deepwater Ichthyofauna (20 min), 17th Annual Albert L. Tester Memorial Symposium, 16 April 1992, Department of Zoology, University of Hawaii, Honolulu, Hawaii.
127. **Presenter:** The Twilight Zone: The potential, problems, and theory behind using mixed gas, surface-based scuba for research diving between 200 and 500 feet (30 min), American Academy of Underwater Sciences Twelfth Annual Scientific Diving Symposium, September, 1992, Wilmington, North Carolina. (P. Sharkey, co-author and presenter)
128. **Presenter:** Mixed Gas Research Diving (30 min), 1992 International Conference on Underwater Education, 10–11 October 1992, Philadelphia, Pennsylvania. (P. Sharkey, co-author and presenter).
129. **Presenter:** The reef and shore fishes of the Ogasawara Islands: a biogeographic perspective (20 min), 18th Annual Albert L. Tester Memorial Symposium, 23 April 1993, Department of Zoology, University of Hawaii, Honolulu, Hawaii.
130. **Presenter:** Biogeographical analysis of the reef and shore fishes of the Ogasawara Islands (12 min.), American Society of Ichthyologists and Herpetologists, 73rd Annual Meeting, 29 May–2 June 1993, University of Texas at Austin, Austin, Texas.

131. **Presenter:** Using new diving techniques to explore the ‘Twilight Zone’ (60 min.), Bishop Museum Research Seminar Series, 31 August 1993, Bishop Museum, Honolulu, Hawaii.
132. **Presenter:** Evoluncheon Seminar, 9 November 1993, University of Hawaii, Honolulu, Hawaii.
133. **Presenter:** Patterns of hybridization in coral reef fishes (20 min), 19th Annual Albert L. Tester Memorial Symposium, April 1994, Department of Zoology, University of Hawaii, Honolulu, Hawaii.
134. **Presenter:** Patterns of hybridization in coral reef fishes (20 min), American Society of Ichthyologists and Herpetologists, 74th Annual Meeting, 2–8 June 1994, University of Southern California, Los Angeles, California.
135. **Presenter:** Patterns of hybridization in coral reef fishes (20 min), Ecological and Evolutionary Ethology of Fishes, 9th Conference, 15–18 May, 1994, University of Victoria, British Columbia.
136. **Presenter:** Use of new diving technology to explore the Twilight Zone (60 min), American Society of Ichthyologists and Herpetologists, 74th Annual Meeting, 2–8 June 1994, University of Southern California, Los Angeles, California.
137. **Presenter:** How Many Reef Fishes are we Missing?: Patterns of New Species Discovery on Deep Coral Reefs in the Indo-Pacific (15 min), 25th Annual Albert L. Tester Memorial Symposium, 13 April 2000, Department of Zoology, University of Hawaii, Honolulu, Hawaii.
138. **Presenter:** A comprehensive database management tool for systematic and biogeographic research (Poster), American Society of Ichthyologists and Herpetologists, 80th Annual Meeting, 14–20 June, 2000, Universidad Autonoma De Baja California Sur, La Paz, Mexico.
139. **Presenter:** Exploring Deep Coral Reefs: Past, Present, and Future (20 min), Hawaii Institute of Marine Biology Student Colloquium, 5 December 2001, Kaneohe, Hawaii.
140. **Presenter:** Counting angelfishes on the head of a pin? The science and art of taxonomy as applied to the Poamcanthidae (60 min), PhD Dissertation Defense presentation, University of Hawaii at Manoa, 5 December 2003, Honolulu, Hawaii.
141. **Presenter:** Protonyms, References, and Assertions: An introduction to the Taxonomer data model (20 min), TDWG – Biodiversity Information Standards. University of Canterbury, Christchurch, New Zealand. 14 October 2004.
142. **Presenter:** Recent Discoveries of New Fishes Inhabiting Deep Pacific Coral Reefs, with Biogeographic Implications (20 min), 7th Indo-Pacific Fish Conference, Taipei, Taiwan. 18 May 2005.
143. **Presenter:** Video highlights of deep coral reefs. (30 min), 7th Indo-Pacific Fish Conference, Taipei, Taiwan. 19 May 2005.
144. **Presenter:** LSIDs for Taxon Names: The ZooBank Experience (15 min), TDWG – Biodiversity Information Standards. SÚZA Conference Center, Bratislava, Slovakia. 18 September 2007.
145. **Co-Author:** The Presence of Deep-Coral Reefs (40 – 120 M) in Hawaii. Montgomery, Anthony, Rooney, John, Pyle, Richard, Boland, Raymond, Parrish, Frank, Spalding, Heather, Longnecker, Ken, Popp, Brian, presented by A. Montgomery. 11th International Coral Reef Symposium: Reef Status and Trends. Ft. Lauderdale, FL. 8 July 2008.
146. **Co-Author:** Efficiency and safety of scientific diving – Closed Circuit Rebreathers. Sieber, A., Pyle, R., & Sjöblom, K., presented by A. Sieber. 7 October 2009. 2nd International Symposium on Occupational Scientific Diving (ISOSD2009) of ESPD, Organised by Finnish Scientific Diving Steering Association, Tvärminne Zoological Station, University of Helsinki, Finland. (20 min).

147. **Co-Author:** Baseline surveys of exploited reef-fish populations at Kamiali, Papua New Guinea: challenges and progress working in a remote, subsistence economy. Longenecker, K., Langston, R., Pyle, R., Pence, D. & Talbot, S. authors, presented by K. Longenecker. 26 March 2010. American Academy of Underwater Sciences Annual Symposium: "Diving For Science". Honolulu, Hawaii. (20 min)
148. **Co-Author:** New report of black coral species from the Northwestern Hawaiian Islands. Wagner, D., Toonen, R.J., Papastamatiou, Y.P., Kosaki, R.K., Gleason, K.A., McFall, G.B., Boland, R.C. & Pyle, R.L., presented by D. Wagner. 26 March 2010. American Academy of Underwater Sciences Annual Symposium: "Diving For Science". Honolulu, Hawaii. (20 min)
149. **Co-Author:** Technical diving used for mesophotic coral ecosystem characterization in the Papahānaumokuākea Marine National Monument. Kosaki, R., Pyle, R.L., Boland, R., McFall, G., Gleason, K., presented by R. Kosaki. 26 March 2010. American Academy of Underwater Sciences Annual Symposium: "Diving For Science". Honolulu, Hawaii. (20 min)
150. **Presenter:** TDWG 2010 (Check others)
151. TDWG 2011
152. NOMINA
153. **Presentation (Presented by Dmitry Y Mozzherin):** Identifiers for Biodiversity Informatics: The Global Names Approach. Biodiversity Information Standards (TDWG), Santa Clara de San Carlos, Costa Rica, 8 December 2016 (15 mins)
154. **GSA 25 May 2017**
- 155.

Popular and Educational:

156. **Invited Presentation:** Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Hawaiian Malacological Society Meeting*, 1 September 1993, First United Methodist Church, Honolulu, Hawaii.
157. **Invited Presentation:** Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Underwater Photography Society*, Epic Dives Hawaii, Kaneohe, Hawaii.
158. **Invited Presentation:** Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Windward Dive Club*, Kaneohe, Hawaii.
159. **Invited Presentation:** Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Sea Camp, YMCA*, Kaneohe, Hawaii.
160. **Invited Plenary Speaker:** Rare fishes, the Twilight Zone, and thoughts on captive propagation (90 min), *Marine Aquarium Conference of North America*, 6th Annual Meeting, October 1994, Cleveland, Ohio. (Sponsored by the Marine Aquarium Society of North America).
161. **Invited Presentation:** Applications of rebreathers for underwater photographers (60 min), *Underwater Photography Society, Hawaii Chapter meeting*, 14 March 1995, Windward Community College, Mahi Room 113. (Sponsored by the Underwater Photography Society, Hawaii Chapter).
162. **Invited Presentation:** Using new diving techniques to explore the 'Twilight Zone' (60 min.), *Sea Lancers Dive Club*, 18 September, 1996, Hickam Air Force Base, Honolulu, Hawaii.
163. **Invited Speaker:** Fishes of Kaneohe Bay (60 min), *UCLA Summer Program*, 17 October 1996, Hawaii Institute of Marine Biology, Kaneohe, Hawaii.

164. **Invited Presentation:** Using advanced diving techniques to explore the ‘Twilight Zone’ (60 min). *Hawaiian Malacological Society Meeting*, 5 February 1997, First United Methodist Church, Honolulu, Hawaii.
165. **Guest Lecturer:** Patterns of Coral Reef Fish Distributions, and the Exploration of the Twilight Zone (75 min), Biology 320: The Atoll, *University of Hawaii at Manoa*. 18 February 1997. Honolulu, Hawaii.
166. **Banquet Speaker:** Diving Into the Twilight Zone (75 min). *Hawaii Council of Diving Clubs annual banquet*, 8 March 1997, Waikiki Aquairum, Honolulu, Hawaii.
167. **Invited Speaker:** Exploring the Twilight Zone (60 min). *Department of Land and Natural Resources*, Honolulu, Hawaii. Fall 1997.
168. **Invited Speaker:** Exploring the Twilight Zone (60 min). *B.P. Bishop Museum Evening Lecture Series*, Honolulu, Hawaii. Fall 1997.
169. **Invited Speaker:** “Meet a Deep Sea Explorer” (60 min). *Bishop Museum In the Dark Day Camp*, 25 March 1998, B.P. Bishop Museum, Honolulu, Hawaii.
170. **Invited Speaker:** Exploring the Twilight Zone (60 min). *Bishop Museum “Explorers” Series*, 30 March 1998, B.P. Bishop Museum, Honolulu, Hawaii.
171. **Invited Presentation:** Closed Circuit Rebreathers and the ‘Twilight Zone’ (60 min.), *Sea Lancers Dive Club*, 12 December, 1998, Hickam Air Force Base, Honolulu, Hawaii.
172. **Invited Speaker:** History of Fish Exploration in Hawaii (60 min.), *Waikiki Aquarium Evening Lecture Series*, Honolulu, Hawaii. Spring 1999.
173. **Featured Evening Lecture Speaker:** Exploration into the Ocean’s Twilight Zone, New Species from Deep Coral Reefs Using Advanced Diving Technology (120 min), 17 November 1999, *Marine Ornamentals ‘99*. Hilton Waikaloa Village, Kailua-Kona, Hawaii.
174. **Guest Lecturer:** Reef Fishes (50 minutes), Zoology 200: Marine Biology. *University of Hawaii at Manoa*. 23 January 2001. Honolulu, Hawaii.
175. **Guest Lecturer:** Reef Fishes (75 minutes), Zoology 480: Ichthyology. *University of Hawaii at Hilo*. 19 April 2001. Hilo, Hawaii.
176. **Featured Evening Speaker:** Exploring Deep Coral Reefs: Past, Present, and Future (45 min), *Hawaii Aquaculture Association Annual Meeting*, 19 January 2002, B. P. Bishop Museum, Honolulu, Hawaii.
177. **Invited Presentation:** Applications of Advanced Diving Technology for Underwater Science: The Deep, the Long, and the Quiet (60 min), *Pagen-Pauley Summer Program*, 2 July 2002, Hawaii Institute of Marine Biology, Kaneohe, Hawaii.
178. **Invited Presentation:** Applications of Advanced Diving Technology for Underwater Science: The Deep, the Long, and the Quiet (60 min), MacGillivray Freeman Films Staff Presentation, 6 August 2002, *MacGillivray Freeman Films*, Laguna Beach, California.
179. **Invited Presentation:** So many fish, so little time...Using advanced diving technology to explore the ‘Twilight Zone’ (45 min), *Marin Community Foundation*, 8 August 2002, Marin Community Foundation, San Francisco, California.
180. **Invited Presentation:** Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (15 min x 3 presentations), *Tech Museum of Innovation*, 5 March 2003, San Jose, California.
181. **Invited Presentation:** Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (25 min x 2 presentations), *National Museum of Naval Aviation*, 20 March 2003, Pensacola, Florida.
182. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (60 min x 4 presentations), *First Ward Elementary School*, 7 April 2003, Charlotte, North Carolina.

183. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (45 min), *Discovery Place*, 7 April 2003, Charlotte, North Carolina.
184. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (45 min), *Bethlehem Center*, 7 April 2003, Charlotte, North Carolina.
185. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (45 min x 2 presentations), *Cochran Middle School*, 8 April 2003, Charlotte, North Carolina.
186. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (60 min), *Grier Heights Community Center*, 8 April 2003, Charlotte, North Carolina.
187. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (30–45 min x 11 presentations), *Carnegie Science Center (SciTech Festival)*, 10–13 April 2003, Pittsburgh, Pennsylvania.
188. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (45 min x 3 presentations), *Museum of Discovery and Science*, 17 April 2003, Ft. Lauderdale, Florida.
189. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (60 min), *Oregon Museum of Science and Industry*, 22 April 2003, Portland, Oregon.
190. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (25 min x 8 presentations), *Duluth OMNIMAX Theatre*, 24–25 April 2003, Duluth, Minnesota.
191. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (30 min x 3), *Cincinnati Museum Center at Union Terminal*, 6–7 May 2003, Cincinnati, Ohio.
192. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (30 min), *Newport Aquarium*, 7 May 2003, Newport, Kentucky.
193. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (90 min), *Reuben H. Fleet Science Center*, 21 June 2003, San Diego, California.
194. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (30 min x 3 presentations), *Tech Museum of Innovation*, 2–3 August 2003, San Jose, California.
195. **Invited Presentation:** Scientist On Tour Series: Exploring the Twilight Zone, and Behind The Scenes of *Coral Reef Adventure*. (30 min x 5 presentations), *Great Lakes Science Center*, 12–13 December 2003, Cleveland, Ohio.
196. **Invited Presentation:** Exploring Deep Coral Reefs/"Uncharted Waters" (60 min), *Sea Lancers Dive Club*, 22 September 2004, Hickam Air Force Base, Honolulu, Hawaii.
197. **Invited Presentation:** A dive into the reef's Twilight Zone (20 min). TED2004: The Pursuit of Happiness, Monterey Conference Center, Monterey, California, 27 February 2004. (http://www.ted.com/talks/richard_pyle_dives_the_twilight_zone)
198. **Invited Presentation:** Exploring the Twilight Zone (30 min) Lanikai Elementary School, Kailua, Hawaii. 10 April 2006.

199. **Invited Presentation:** Exploring the Twilight Zone (30 min) SCUBA naut International group (60 min) Bernice P. Bishop Museum, Ichthyology Collection, Honolulu, Hawaii. 19 October 2007.
200. **Guest lecturer:** Le Jardin Academy High School Advanced Placement Biology class, “Exploring Deep Coral Reefs”, 9 May 2008 (45 min x 3 classes)
201. Waikiki Aquarium
202. **Invited Speaker:** Into the Twilight Zone: Exploring the Deep Coral Reefs (60 min). 12 June 2008. Atherton Halau, Bernice P. Bishop Museum, Honolulu, Hawaii.
203. Sweden-Life at the Twilight Zone (60 min). Universeum, Gothenburg, Sweden.
204. **Guest lecturer:** “Advanced Topics in Marine Biology” class, Cindy Hunter professor (45 min), 3 March 2009, University of Hawaii, Honolulu, Hawaii.
205. **Guest lecturer:** Le Jardin Academy High School Biology class, “Taxonomy and Systematics”, 5 March 2009 (45 min x 3 classes)
206. **Speaker:** Life as a Marine Biologist. 20 March 2009. Waimanalo School Career Day, Waimanalo Intermediate School, Waimanalo, HI. (30 min. x 5 classes)
207. **Speaker:** Exploring Life on the Edge of Darkness. 60 min. 16 April 2009. Harvard Club Brown Bag Luncheon, Atherton Halau, Bishop Museum, Honolulu, HI
208. **Invited Speaker:** Back to the Future in Underwater Exploration: An Old Technology Comes of Age. 60 min. 7 October 2009. Georgia Aquarium Brown Bag Lunch Series, Atlanta, GA.
209. **Guest lecturer:** University of Hawaii at Manoa for Biol 404 Advanced Topics in Marine Biology, “Exploring Deep Coral Reefs”, 18 February 2010 (75 min.)
210. **Guest lecturer:** Hawaii Institute of Marine Biology for Tropical Ecology visiting class, “Exploring Deep Coral Reefs”, 29 March 2010 (75 min.)
211. **Guest lecturer:** Le Jardin Academy High School Advanced Placement Biology class, “Exploring Deep Coral Reefs”, 15 April 2010 (45 min x 3 classes)
212. **Invited Speaker:** Exploring the Twilight Zone: New Technology to find New Species, Midwest Marine Conference, Bloomfield Hills, MI, 22 May 2010 (60 min)
213. **Guest lecturer:** Le Jardin Academy High School Biology class, “Taxonomy and Systematics”, 15 March 2011 (45 min x 3 classes)
214. **Guest lecturer:** Le Jardin Academy High School Advanced Placement Biology class, on Taxonomy and Systematics, April 2012 (75 min x 3 classes)
215. **Guest lecturer:** Le Jardin Academy High School Advanced Placement Biology class, on Taxonomy and Systematics, 25–26 April 2013 (75 min x 3 classes)
216. **Invited Presentation:** The Greatest Library on Earth. Saranac Lake Free Library, Saranac Lake, New York. 8 July 2013 (1 hour)
217. **Invited Keynote Speaker: MACNA 2013**
218. **Invited Speaker:** Commencement Speech for a group of graduating Eagle Scouts (Boy Scouts of America), St. John Vianney Chapel, Kailua, Hawaii. 12 January 2014 (15 min)
219. **Guest lecturer:** Le Jardin Academy High School DP Biology class, on Taxonomy and Systematics, 25–26 April 2014 (75 min x 3 classes)
220. **Invited Presenter:** (with Neal Evenhuis and Sonia Rowley) Natures Wonders Exhibit, presented to Bishop Museum Docents. Long Gallery, Bernice P. Bishop Museum. 26 August 2014. (1 hour)
221. **Invited Speaker:** Fishing the Twilight Zone. NOAA Ship R/V Hi‘ialakai, Papahānaumokuākea Marine National Monument. 24 September 2014 (20 min)
222. **Invited Speaker:** Diving with Coelacanths. NOAA Ship R/V Hi‘ialakai, Papahānaumokuākea Marine National Monument. 24 September 2014 (30 min)

223. **Invited Joint Presentation:** (with Sonia Rowley). Exploring deep coral reefs. Bernice P. Bishop Museum, Hawaiian Hall Atrium. 28 November 2014 (25 min, 15 people)
224. **Invited Presentation:** Exploring Papahānaumokuākea. Bernice P. Bishop Museum, Science Adventure Center. December 3 2014 (1 hour).
225. **Invited Joint Presentation:** (with Sonia Rowley). Exploring deep coral reefs. Bernice P. Bishop Museum, Hawaiian Hall Atrium. 19 January 2015 (25 min)
226. **Guest lecturer:** Le Jardin Academy High School Advanced Placement Biology class, on Taxonomy and Systematics, 30 April–1 May 2015 (75 min x 3 classes)
227. **Invited Joint Presentation:** (with Sonia Rowley and Brian Greene). Exploring deep coral reefs in Pohnpei. College of Micronesia, Pacific Small Business Center Building, Top Floor. 26 July 2015 (60 min, 150 people)
228. **Invited Joint Presentation:** (with Sonia Rowley and Brian Greene). Exploring deep coral reefs in Pohnpei. Conservation Society of Pohnpei. 26 July 2015 (60 min, 20 people)
229. **Invited Presentation:** Closed Circuit Rebreathers. NOAA Ship R/V Hi‘ialakai, Papahānaumokuākea Marine National Monument. XX September 2015 (60 min, 20 people)
230. **Invited Presentation:** Creatures of the Deep. Waikiki Aquarium Distinguished Lecture Series. Thurston Memorial Chapel of his alma mater, Punahou School, Honolulu. 19 November 2015 (75 min, 300 people) <https://youtu.be/ZD3RuqLP18U>
231. Monument Expansion (CEQ)
232. Bishop Museum Interns, 1 April 2016 (12 people)
233. **TOTP1**
234. **Invited Speaker:** Poseidon Rebreathers. NOAA Diving Center Safety Board Meeting, Daniel K. Inouye Regional Center (IRC), Ford Island, Honolulu, 26 February 2016 (45 min; 25 people).
235. **Featured Speaker:** Saving the Biodiversity Library. Honolulu Science Café, JJ’s Bistro, Honolulu, 19 April 2016 (60 min; 20 people).
236. **Guest lecturer:** Le Jardin Academy High School DP Biology class, on Taxonomy and Systematics, 28–29 April 2016 (75 min x 3 classes)
237. **Featured Speaker:** Saving the Biodiversity Library. Rotary Club of Honolulu Sunset, Waikiki Yacht Club, Honolulu, 20 June 2016 (25 min; 35 people).
238. **TOTP2**
239. **MACNA**
240. **Invited Lecturer:** Exploring deep coral reefs in Hawaii. Aloha Bowl Team Home School Group, Aliamanu Military Reservation, Honolulu, 3 October 2016 (45 min; 15 people).
241. **DEMA – Evolution of Oxygen Sensors**, 16 November 2016 (60 people)
242. **Coral Fish Hawaii**, 20 November 2016 (20 people)
243. **Invited Panel:** Follow-up discussion on premiere of the film, “Sea of Hope”, National Geographic Grosvenor Auditorium, Washington, D.C. 5 January 2017 (20 mins, 300 people)
244. **Invited Presentation:** Exploration and Discoveries on Deep Coral Reefs. NOAA National Marine Sanctuary of American Samoa Center. 27 February 2017 (45 mins, 120 people)
245. **Guest lecturer:** Le Jardin Academy High School DP Biology class, on Taxonomy and Systematics, 28–29 April 2017 (75 min x 3 classes)
246. **Invited Presentation:** (Douglas McCauly and Stephen Palumbi, co-presenters) Science in support of the Papahānaumokuākea Marine National Monument. Office of Earl Comstock, Office of Policy and Strategic Planning, U.S. Department of Commerce, Washington, D.C. 14 June 2017 (45 mins, 6 people)

247. **Invited Presentation:** Building a Common Nomenclatural Infrastructure. National Center for Biotechnology Information, Bethesda, Maryland. 16 June 2017 (90 mins, 22 people)

Other National and International Meetings and Conferences:

U.S.- Japan Workshop on Elasmobranchs as Living Resources, American Elasmobranch Society, 10–14 December 1987, Honolulu, Hawaii.

American Society of Ichthyologists and Herpetologists, 69th Annual Meeting/American Elasmobranch Society, 5th Annual Meeting, 17–23 June 1989, San Francisco, California.

Ecological and Evolutionary Ethology of Fishes, 7th Conference, 19–23 May, 1990, Flagstaff, Arizona.

Pacific Science Congress, 17th Annual Conference, Honolulu, Hawaii.

American Academy of Underwater Sciences, 11th Annual Scientific Diving Symposium, 26–29 September 1991, Honolulu, Hawaii.

Implementing Enriched Air Nitrox (EAN) Technology: A Community Guideline, 13–14 January 1992, Houston, Texas.

PUBLICATIONS

Scientific and Technical:

1. **Pyle, R.L.** 1988. A new subspecies of butterflyfish (Chaetodontidae) of the genus *Roaops* from Christmas Island, Line Islands. *Freshwater and Marine Aquarium Magazine* 11(9):56–62,123–124, 10 figs.
2. **Pyle, R.L.** 1990. *Centropyge debelius*, a new species of angelfish (Teleostei: Pomacanthidae) from Mauritius and Réunion. *Révue française Aquariologie* 17(2):47–52, 7 figs.
3. Kosaki, R.K., **R.L. Pyle**, J.E. Randall and D.K. Irons. 1991. New records of fishes from Johnston Atoll, with notes on biogeography. *Pacific Science* 45(2):186–203, 17 figs.
4. **Pyle, R.L.** 1992. The peppermint angelfish *Centropyge boylei*, n.sp. Pyle and Randall. *Freshwater Mar. Aquar.* 15(7):16–18, 3 figs. + cover.
5. **Pyle, R.L.** and J.E. Randall. 1992. A new species of *Centropyge* (Perciformes: Pomacanthidae) from the Cook Islands, with a redescription of *C. boylei*. *Révue française Aquariologie* 19(4):115–124, 7 figs.
6. **Pyle, R.L.** 1992. The Twilight Zone. *AquaCorps: Mix.* 3(1):19, 1 fig.
7. **Pyle, R.L.** 1993. Marine Aquarium Fish. In: *Nearshore Marine Resources of the South Pacific: Information for Fisheries Development and Management.* (A. Wright and L. Hill, eds.), Institute of Pacific Studies, Suva; Forum Fisheries Agency, Honiara; and International Centre for Ocean Development, Canada. 135–176.
8. Randall, J.E., J.L. Earle, **R.L. Pyle**, J.D. Parrish, and T. Hayes. 1993. Annotated checklist of the fishes of Midway Atoll, Northwestern Hawaiian Islands. *Pacific Science* 47(4): 356–400.
9. Sharkey, P. and **R.L. Pyle.** 1993. The Twilight Zone: The potential, problems, and theory behind using mixed gas, surface based scuba for research diving between 200 and 500 feet. In: *Diving for Science...1992. Proceedings of the American Academy of Underwater Sciences Twelfth Annual Scientific Diving Symposium.* (L.B. Cahoon, ed.), American Academy of Underwater Sciences, Costa Mesa, CA. pp. 173–187.
10. Sharkey, P. and **R.L. Pyle.** 1993. The Twilight Zone: Mixed Gas Research Diving. In: *Proceedings of the 1992 International Conference on Underwater Education.* (H. Vidders, ed.), National Association of Underwater Instructors, Montclair, CA.

11. **Pyle, R.L.** and J.E. Randall. 1994. A review of hybridization in marine angelfishes (Perciformes: Pomacanthidae). *Environmental Biology of Fishes* 41: 127–145.
12. **Pyle, R.L.** and J.E. Randall. 1994. A review of hybridization in marine angelfishes (Perciformes: Pomacanthidae). *In*: Balon, E.K., M.N. Bruton, and D.L.G. Noakes (Eds.) *Women in ichthyology: an anthology in honour of ET, Ro and Genie. Developments in environmental biology of fishes* 15, Kluwer Academic Publishers, Boston, pp.127–145.
13. **Pyle, R.L.** and E.H. Chave. 1994. First record of the chaetodontid genus *Prognathodes* from the Hawaiian Islands. *Pacific Science* 48(1): 90–93.
14. **Pyle, R.L.** 1995. Chapter 12. Pacific reef and shore fishes. *In*: Maragos, J.E., M.N.A. Peterson, L.G. Eldredge, J.E. Bardach, and H.F. Takeuchi (Eds.). *Marine and Coastal Biodiversity in the Tropical Island Pacific Region. Volume 1. Species Systematics and Information Management Priorities*. Program on Environment, East-West Center, Honolulu, Hawaii, pp. 205–238.
15. **Pyle, R.L.** and D.A. Youngblood. 1995. The case for in-water recompression. *aquaCorps*, No. 11:35–46.
16. **Pyle, R.L.** 1996. Section 7.9. Multiple gas mixture diving, Tri-mix. *In*: Flemming, N.C. and M.D. Max (Eds.) *Scientific Diving: a general code of practice, Second Edition*. United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris; and Scientific Committee of the World Underwater Federation (CMAS), Paris, pp. 77–80.
17. **Pyle, R.L.** 1996. Section 8.2.27. Underwater volcanoes and igneous intrusions. *In*: Flemming, N.C. and M.D. Max (Eds.) *Scientific Diving: a general code of practice, Second Edition*. United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris; and Scientific Committee of the World Underwater Federation (CMAS), Paris, pp. 113–114.
18. **Pyle, R.L.** 1996. Section 11.16. Therapy in the Absence of a Recompression Chamber (in part). *In*: Flemming, N.C. and M.D. Max (Eds.) *Scientific Diving: a general code of practice, Second Edition*. United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris; and Scientific Committee of the World Underwater Federation (CMAS), Paris, pp. 160–161.
19. **Pyle, R.L.** 1996. Exploring deep coral reefs: how much biodiversity are we missing? *Global biodiversity*, 6(1):3–7 (Published in both English and French versions).
20. **Pyle, R.L.** 1996. Adapting to Rebreather Diving. *Immersed Advanced Diving Journal* 1(2):12–21.
21. **Pyle, R.L.** 1996. The Twilight Zone. *Natural History*, 105(11):59–62.
22. **Pyle, R.L.** 1996. A Learner's Guide to Closed Circuit Rebreather Diving. *In*: Proceedings of the Rebreather Forum 2.0. 26–28 September, 1996. Redondo Beach, CA, pp. P45–P67.
23. **Pyle R.L.** and D. Youngblood. 1997. In-water recompression as an emergency field treatment of decompression illness (Revised). *SPUMS J.* 27(3):154–169.
24. Gill, A.C., **R.L. Pyle**, and J.L. Earle. 1996. *Pseudochromis ephippiatus*, new species of dottyback from southeastern Papua New Guinea (Teleostei: Perciformes: Pseudochromidae). *Révue française Aquariologie* 23(3–4):97–100.
25. Earle, J.L. and **R.L. Pyle**. 1997. *Hoplotalilus pohlei*, a new species of sand tilefish (Perciformes: Malacanthidae) from the deep reefs of the D'Entrecasteaux Islands, Papua New Guinea. *Copeia* 1997(2):383–387.
26. Randall, J.E., K. Kato, H. Ida, **R.L. Pyle**, and J.L. Earle. 1997. Annotated checklist of the inshore fishes of the Ogasawara Islands. National Science Museum Monographs No. 11. National Science Museum, Tokyo. 74 pp + 19 col. pls.

27. **Pyle, R.L.** 1997. The Importance of Deep Safety Stops: Rethinking Ascent Patterns From Decompression Dives. *South Pacific Underwater Medical Society Journal* (SPUMS) 27(2):112–115.
28. **Pyle, R.L.** 1997. A new angelfish of the genus *Genicanthus* (Perciformes: Pomacanthidae) from the Ogasawara Islands and Minami Tori Shima (Marcus Island). *Révue française Aquariologie* 24(3–4):87–92.
29. Basset, Y., V. Novotny, S. E. Miller & **R. L. Pyle.** 1997 Parataxonomists and digital photography in ecological and entomological research: experience from Papua New Guinea and Guyana. *AMBIO: A Journal of the Human Environment*.
30. **Pyle, R.L.** 1997. MK-5P Electronically Controlled, Mixed-Gas Closed-Circuit Rebreather: Manual of Operation. Version 1.0. Cis-Lunar Development Laboratories. 136 pp.
31. **Pyle, R.L.** 1998. Chapter 7. Use of advanced mixed-gas diving technology to explore the coral reef “Twilight Zone”. pp. 71–88. *In: Tanacredi, J.T. and J. Loret (Eds.). Ocean Pulse: A Critical Diagnosis.* Plenum Press, New York. xii + 201 pp.
32. **Pyle, R.L.** 1999. Keeping up with the times: application of technical diving practices for in-water recompression. pp.74–88. *In: Kay, E. and Spencer, M.P. (eds.) In-Water Recompression: The Forty Eighth Workshop of the undersea and Hyperbaric Medical Society.* Undersea and Hyperbaric Medical Society and Diver’s Alert Network. 108 pp.
33. **Pyle, R.L.** 1999. Mixed-Gas, Closed-Circuit Rebreather Use for Identification of New Reef Fish Species from 200 – 500 fsw. pp. 53–65. *In: Hamilton R.W., D.F. Pence, and D.E. Kesling (eds.) Assessment and Feasibility of Technical Diving Operations for Scientific Exploration.* American Academy of Underwater Sciences, Nahant, Massachusetts. 83 pp.
34. **Pyle, R.L.** 1999. Patterns of coral reef fish biogeography in the Pacific region. pp. 157–175. *In: Eldredge, L.G., J.E. Maragos, P.F. Holthus, and H.F. Takeuchi (Eds.). Marine and Coastal Biodiversity in the Tropical Island Pacific Region. Volume 2. Population, Development, and Conservation Priorities.* Program on Environment, East-West Center / Pacific Science Association, Bishop Museum, Honolulu, Hawaii, 456 pp.
35. **Pyle, R.L.** 1999. MK-5P—MOD 1 Electronically Controlled, Mixed-Gas Closed-Circuit Rebreather: Manual of Operation. Cis-Lunar Development Laboratories. 144 pp.
36. **Pyle, R.L.** 2000. Assessing Undiscovered Fish Biodiversity on Deep Coral Reefs Using Advanced Self-Contained Diving Technology. *Marine Technology Society Journal* 34(4):82–91.
37. Basset, Y., V. Novotny, S.E. Miller & **R.L. Pyle.** 2000. Quantifying biodiversity: Experience with parataxonomists and digital photography in New Guinea and Guyana. *BioScience* 50(10):899–908.
38. Randall, J.E. and **R.L. Pyle.** 2001. Three new species of labrid fishes of the genus *Cirrhilabrus* from islands of tropical Pacific. *Aqua*, 4(3):89–98.
39. Randall, J.E., **R.L. Pyle** and R.F. Myers. 2001. Three examples of hybrid surgeonfishes (Acanthuridae). *Aqua*, 4(3):115–120.
40. Randall, J.E. and **R.L. Pyle.** 2001. Four new serranid fishes of the anthiine genus *Pseudanthias* from the South Pacific. *Raffles Bulletin Zoology* 49(1):19–34.
41. Parrish, F. and **R.L. Pyle.** 2001. Surface Logistics and Consumables for Open-Circuit and Closed-Circuit Deep Mixed-Gas Diving Operations Proceedings of the MTS/IEEE Oceans 2001 Conference, Volume 3:1735–1737.
42. **Pyle, R.L.** 2001. Anti-evolution Standards Rejected in Hawai’i. *Reports of the National Center for Science Education* November/December 2000. 20(6):4–5.
43. **Pyle, R.L.** 2002. Chaetodontidae. pp. 3224–3265. *In: Carpenter, K.E. and V.E. Niem (Eds.) Living marine resources of the western central Pacific. Volume 5. Bony fishes part 3*

- (Menidae to Pomacentridae). Food and Agriculture Organization of the United Nations (FAO), Rome. i–iv+2791–3379.
44. **Pyle, R.L.** 2002. Pomacanthidae: Angelfishes. pp. 3266–3286. *In*: Carpenter, K.E. and V.E. Niem (Eds.) Living marine resources of the western central Pacific. Volume 5. Bony fishes part 3 (Menidae to Pomacentridae). Food and Agriculture Organization of the United Nations (FAO), Rome. i–iv+2791–3379.
 45. **Pyle, R.L.** 2002. Insights on Deep Bounce Dive Safety From the Technical Diving Community. Proceedings of the 16th Meeting of the United States-Japan Cooperative Programs on Natural Resources (UJNR), 1–3 November 2001, East-West Center, Honolulu, Hawaii. pp. 47–53.
 46. Pence, D.F. and **R.L. Pyle**. 2002. University of Hawaii dive team completes Fiji deep reef fish surveys using mixed-gas rebreathers. *SLATE*. April: 1–3.
 47. Parrish, F.A. and **R.L. Pyle**. 2002. Field comparison of open-circuit scuba to closed-circuit rebreathers for deep mixed-gas diving operations. *Marine Technology Society Journal*. 36(2):13–22.
 48. **Pyle, R.L.** 2003. A systematic treatment of the reef-fish family Pomacanthidae (Pisces: Perciformes). Ph.D. Dissertation, Department of Zoology, University of Hawaii. xv+422 pp.
 49. **Pyle, R.L.** 2004. Comparison of Open vs. Closed Circuit System in Deep Mix Diving. The Coelacanth, Fathom the Mystery: Proceedings of International Coelacanth Symposium, 4–7 December 2003, Marathon, Florida. Aquamarine Fukushima, Marine Science Museum, Fukushima Prefecture. pp. 32–37.
 50. **Pyle, R.L.** 2004. Taxonomer: a relational data model for managing information relevant to taxonomic research. *Phyloinformatics*, 1:1–54.
 51. Polaszek, A., D. Agosti, M. Alonso-Zarazaga, G. Beccaloni, P. de Place Bjørn, P. Bouchet, D.J. Brothers, Earl of Cranbrook, N. Evenhuis, H.C.J. Godfray, N.F. Johnson, F.-T. Krell, D. Lipscomb, C.H.C. Lyal, G.M. Mace, S. Mawatari, S.E. Miller, A. Minelli, S. Morris, P.K.L. Ng, D.J. Patterson, **R.L. Pyle**, N. Robinson, L. Rogo, J. Taverne, F.C. Thompson, J. van Tol, Q.D. Wheeler & E.O. Wilson. 2005. Commentary: A universal register for animal names. *Nature*. 437: 477.
 52. Polaszek, A., M. Alonso-Zarazaga, P. Bouchet, D.J. Brothers, N. Evenhuis, F.-T. Krell, C.H.C. Lyal, A. Minelli, **R.L. Pyle**, N.J. Robinson, F.C. Thompson, & J. van Tol. 2005. ZooBank: the open-access register for zoological taxonomy: Technical Discussion Paper. *Bulletin of Zoological Nomenclature*. 62(4):210–220. 16 December 2005 (http://www.nhm.ac.uk/hosted_sites/iczn/BZNDec2005general_articles.htm)
 53. [**Pyle, R.L.**] 2006. *Identifiers for the Life Sciences: A Primer for Biologists*. Taxonomic Databases Working Group, Biodiversity Information Standards (TDWG). 2 pp.
 54. Tanaka, H., **R.L. Pyle** and J.E. Randall. 2006. The color phases of the fairy wrasse *Cirrhilabrus roseafascia*, and comparison with *C. lanceolatus*. *Biogeography*. 8: 7–9.
 55. Schultz, J.K., **R.L. Pyle**, E. DeMartini & B.W. Bowen. 2007. Genetic connectivity among color morphs and archipelagos for the flame angelfish, *Centropyge loriculus*. *Marine Biology*. 151:167–175.
 56. Polaszek, A., **R. Pyle** & D. Yanega. 2008. Animal names for all: ICZN, ZooBank, and the New Taxonomy. pp. 129–142. *In*: Wheeler, Q.D. (Ed.). The New Taxonomy. CRC Press, Boca Raton. 237 pp.
 57. International Commission on Zoological Nomenclature (ICZN). 2008. Proposed amendment of the International Code of Zoological Nomenclature to expand and refine methods of publication. *Zootaxa*, 1908: 57–67

58. **Pyle, R.L.** & E. Michel. 2008. ZooBank: Developing a nomenclatural tool for unifying 250 years of biological information. Pp. 39–50. *In*: Minelli, A., Bonato, L. & Fusco, G. (eds.) *Updating the Linnaean Heritage: Names as Tools for Thinking about Animals and Plants. Zootaxa*, 1950, 1–163.
59. **Pyle, R.L.**, J.L. Earle & B.D. Greene. 2008. Five new species of the damselfish genus *Chromis* (Perciformes: Labroidae: Pomacentridae) from deep coral reefs in the tropical western Pacific. *Zootaxa*. 1671: 3–31. (<http://www.mapress.com/zootaxa/2008/f/zt01671p031.pdf>)
60. Randall, J.E. & **R.L. Pyle**. 2008. *Synodus orientalis*, a new lizardfish (Aulopiformes: Synodontidae) from Japan and Taiwan, with correction of the Asian records of *S. lobeli*. *Zoological Studies*, 47(5):657–662.
61. Mitchel, Simon J., **Richard Pyle** & Richard E. Moon. 2009. Therapy for decompression illness. *Technical Diving*. Pp. 178–201, *In*: Vann, Richard D., Mitchell, Simon J., Denoble, Petar J. Anthony, T.G. (eds.). *Technical Diving Conference Proceedings Divers Alert Network*, Durham, NC. 394 pages. ISBN# 978-1-930536-53-1 (<http://archive.rubicon-foundation.org/8300>)
62. **Pyle, R.L.** 2009. Pyle. pp. 191–198. *In*: Knapp, S. & Q. Wheeler (eds.). *Letters to Linnaeus*. Linnean Society of London, London. 336 pp. (March 3, 2009; ISBN-10: 0950620793; ISBN-13: 978-0950620794)
63. **Pyle, R.L.** & Michel, E. 2009. Unifying nomenclature: ZooBank and Global Names Usage Bank. *Bulletin of Zoological Nomenclature* 66: 298.
64. Stone, W.C. & **R.L. Pyle**. 2009. MkVI Discovery Electronically-Controlled Closed-Circuit Rebreather: User’s Guide Version 2.0 (Firmware Version 42). Poseidon Diving Systems AB, Göteborg, Sweden. 93 pp. (18 September 2009)
65. Sieber, Arne, Nigel A. Jones, Bill Stone, **Richard Pyle**, Bernhard Koss & Kurt Sjöblom. 2009. Embedded Systems in the Poseidon MK6 Rebreather. *Lecture Notes in Electrical Engineering*, 81:33–44. http://dx.doi.org/10.1007/978-94-007-0638-5_3 (<https://www.researchgate.net/publication/224569856>)
66. Lyubomir Penev, Terry Erwin, F. Christian Thompson, Hans-Dieter Sues, Michael S. Engel, Donat Agosti, Richard Pyle, Michael Ivie, Thorsten Assmann, Thomas Henry, Jeremy Miller, Natalia B. Ananjeva, Achille Casale, Wilson Lourenço, Sergei Golovatch, Hans-Peter Fagerholm, Stefano Taiti, Miguel Alonso-Zarazaga, Erik van Nieukerken. 2009. ZooKeys, unlocking Earth’s incredible biodiversity and building a sustainable bridge into the public domain: From “print-based” to “web-based” taxonomy, systematics, and natural history. ZooKeys Editorial Opening Paper. *ZooKeys* 1:1–7. <http://dx.doi.org/10.3897/zookeys.1.1>
67. Longenecker, Ken, Allen Allison, Holly Bolick, Shelley James, Ross Langston, **Richard Pyle**, David Pence, and Simon Talbot. 2009. A preliminary Assessment of Exploited Reef-fish Populations at Kamiali Wildlife Management Area, Papua New Guinea. Bishop Museum Technical Report 49:1–75.
68. **Pyle, R.L.** & E. Michel. 2010. ZooBank: Reviewing the first year and preparing for the next 250. Pp. 173–184, *In*: Polaszek, A. (Ed.), *Systema Naturae 250. The Linnaean Ark*. CRC Press, Boca Raton.
69. **Pyle, R.L.** 2010. ZooBank Policy 001: Drafting and Ratification of ZooBank Policies. *Bulletin of Zoological Nomenclature*. 67(4): 275-277.
70. Hinderstein, L.M., J.C.A. Marr, F.A. Martinez, M.J. Dowgiallo, K.A. Puglise, **R.L. Pyle**, D.G. Zawada & R. Appeldoorn. 2010. Theme section on “Mesophotic Coral Ecosystems: Characterization, Ecology, and Management”. *Coral Reefs*. 29:247–251. <http://dx.doi.org/10.1007/s00338-010-0614-5>

71. Sieber, A. & **R. Pyle**. 2010. A review of the use of closed-circuit rebreathers for scientific diving. *International Journal of the Society for Underwater Technology*. 29(2):73–78. <http://dx.doi.org/10.3723/ut.29.073>
72. Patterson, D.J., Cooper, J., Kirk, P.M, **Pyle, R.L.** and Remsen, D.P. 2010. Names are key to the big new biology. *Trends in Ecology & Evolution*, 1297:1–6. <http://dx.doi.org/10.1016/j.tree.2010.09.004>
73. Special Committee on Electronic Publication (J. McNeil and N. J. Turland, eds.). 2010. (203–213) Proposals to permit electronic publications to be effectively published under specified conditions. *Taxon*, 59(6):1–4.
74. Krell, Frank T. & **Pyle, R.L.** 2010. ZooBank Progress Report. *Bulletin of Zoological Nomenclature*. 67(4): 271–275. (<http://www.dmns.org/media/324395/163-bullzoolnom2010.pdf>)
75. Fricke, R., Earle, J.L., **Pyle, R.L.**, and Séret, B. 2010. Checklist of the Fishes. pp. 383–409. *In: Natural History of Santo* (P. Bouchet, H. Le Guyader and O. Pascal, eds.), Muséum National d'Histoire Naturelle, Paris; Institut de Recherche pour le Développement, Marseille; Pro-Natura International, Paris. 572 pp. (ISBN-13: 9782856536278).
76. Richards, Kevin, White, Richard, Nicolson, Nicola and **Pyle, Richard**. 2011. *Beginners' Guide to Persistent Identifiers Version 1.0*. Global Biodiversity Information Facility. Copenhagen, 33pp. http://links.gbif.org/persistent_identifiers_guide_en_v1.pdf
77. Mindell, D.P., Fisher, B.L., Roopnarine, P., Eisen, J., Mace, G.M, Page, R.D.M. & **Pyle, R.L.**, 2011. Aggregating, tagging and integrating biodiversity research. *Public Library of Science ONE* 6(8):e19491. <http://dx.doi.org/10.1371/journal.pone.0019491>
78. Wagner, D., Papastamatiou, Y.P., Kosaki, R.K., Gleason, K.A., McFall, G.B., Boland, R.C., **Pyle, R.L.**, & Toonen, R.J. 2011. New records of commercially valuable black corals (Cnidaria: Antipatharia) from the Northwestern Hawaiian Islands at mesophotic depths. *Pacific Science*, 65(2):249–255. <http://dx.doi.org/10.2984/65.2.249>
79. Whitney, N., **Pyle, R.L.**, Holland, K.N., Barcz, J.T. 2011. Movements, reproductive seasonality, and fisheries interactions in the whitetip reef shark (*Triaenodon obesus*) from community-contributed photographs. *Environmental Biology of Fishes*. 93(1):121–136 <http://dx.doi.org/10.1007/s10641-011-9897-9>
80. Howarth, F.G., Preston, D.J., Pyle, R.L. 2011. Surveying for terrestrial arthropods (insects and relatives) occurring within the Kahului airport environs, Maui, Hawai'i: Synthesis report.
81. Greuter, W. R., J. Garrity, D. L. Hawksworth, A. F. W. E. Jahn, P. Kirk, S. Knapp, J. McNeill, E. Michel, D. J. Patterson, **R. L. Pyle** & B. J. Tindall. 2011. Draft BioCode (2011): principles and rules regulating the naming of organisms. *Taxon* 60: 201–212.
82. Greuter, W. R., J. Garrity, D. L. Hawksworth, A. F. W. E. Jahn, P. Kirk, S. Knapp, J. McNeill, E. Michel, D. J. Patterson, **R. L. Pyle** & B. J. Tindall. 2011. Draft BioCode (2011): principles and rules regulating the naming of organisms. *Bionomina* 3: 24–44. (<https://www.researchgate.net/publication/228470713>)
83. DiBattista, Joseph D., Ellen Waldrop, Brian W. Bowen, Jennifer K. Schultz, Michelle R. Gaither, **Richard L. Pyle** & Luiz A. Rocha. 2012. Twisted sister species of pygmy angelfishes: discordance between taxonomy, coloration, and phylogenetics. *Coral Reefs*, 31:839–851. <http://dx.doi.org/10.1007/s00338-012-0907-y>
84. Rosenberg, G., Krell, F.-T. & **Pyle, R.L.** 2012. Nomenclature: Call to register new species in ZooBank. *Nature* 491(7422):40. <http://dx.doi.org/10.1038/491040b>
85. Miller, J., Dikow, T., Agosti, D., Sautter, G., Capatano, T., Penev, L., Zhang, Z.-Q., Pentcheff, D., **Pyle, R.**, Blum, S., Parr, C., Freeland, C., Garnett, T., Ford, L.S., Muller, B., Smith, L., Strader, G., Georgiev, T., Bénichou, L. 2012. From taxonomic literature to cybertaxonomic

- content. *BioMed Central Biology*, 10:87. <http://dx.doi.org/10.1186/1741-7007-10-87>
<http://www.biomedcentral.com/1741-7007/10/87>
86. **Pyle, R. L.** & J. L. Earle. 2013 *Xanthichthys greenei*, a new species of triggerfish (Balistidae) from the Line Islands. *Biodiversity Data Journal*. 1: e994.
<https://doi.org/10.3897/BDJ.1.e994>
 87. Wagner, D., Toonen, R.J., Papastamatiou, Y., Kosaki, R.K., Gleason, K.A., McFall, G.B., Boland, R.C., **Pyle, R.L.** 2013. Mesophotic surveys of the Northwestern Hawaiian Islands with new records of black coral species. In: Lang, M.A. & Sayer, M.D.J. (eds.). *Proceedings of the 2013 AAUS/ESDP Curaçao Joint International Scientific Diving Symposium*, October 24–27, 2013, Curaçao. Dauphin Island, AL: American Academy of Underwater Sciences.
 88. Hardisty, Alex, Dave Roberts and The Biodiversity Informatics Community. 2013. A decadal view of biodiversity informatics: challenges and priorities. *BMC Ecology* 13:16.
<http://dx.doi.org/10.1186/1472-6785-13-16>
 89. Gaither, Michelle R, Jennifer K. Schultz, David R. Bellwood, **Richard L. Pyle**, Joseph D. DiBattista, Luiz A. Rocha, Brian W. Bowen. 2014. Evolution of pygmy angelfishes: Recent divergences, introgression, and the usefulness of color in taxonomy. *Molecular Phylogenetics and Evolution*, 74:38–47. <http://dx.doi.org/10.1016/j.ympev.2014.01.017>
(<https://www.researchgate.net/publication/260030682>)
 90. Andrews, Kimberly R., Virginia N. Moriwake, Christie Wilcox, E. Gordon Grau, Christopher Kelley, **Richard L. Pyle**, Brian W. Bowen. 2014. Phylogeographic Analyses of Submesophotic Snappers *Etelis coruscans* and *Etelis “marshi”* (Family Lutjanidae) Reveal Concordant Genetic Structure across the Hawaiian Archipelago. *PLoS ONE*, 9(4):e91665.
<http://dx.doi.org/10.1371/journal.pone.0091665>
(<https://www.researchgate.net/publication/261603815>)
 91. Wagner, Daniel, Randall K. Kosaki, Heather Spalding, Robert K. Whitton, **R.L. Pyle**, Alison R. Sherwood, Roy T. Tsuda & Barbara Calcinaï. 2014. Mesophotic surveys of the flora and fauna at Johnston Atoll, Central Pacific Ocean. *Marine Biodiversity Records*, 7:e68.
<http://dx.doi.org/10.1017/S1755267214000785>
(<https://www.researchgate.net/publication/264040891>)
 92. **Pyle, Richard L.** 2014. Toward a new era in recreational and technical rebreather diving. Pp. 173–184, In: Vann Richard D., Denoble Petar J. & Pollock Neal W. (eds.) *Rebreather Forum 3 Proceedings*. AAUS/DAN/PADI, Durham, NC, 324 pp. ISBN #978-0-9800423-9-9 (http://media.dan.org/RF3_web.pdf)
 93. Copus, J. M., **R.L. Pyle** and J.L. Earle. 2015. *Neoniphon pencei*, a new species of holocentrid (Teleostei: Beryciformes) from Rarotonga, Cook Islands. *Biodiversity Data Journal*. 3:e4180 <http://dx.doi.org/10.3897/BDJ.3.e4180>
 94. Copus, J. M., C. A. Ka‘apu-Lyons & **R. L. Pyle**. 2015 *Luzonichthys seaver*, a new species of Anthiinae from Pohnpei, Micronesia. *Biodiversity Data Journal*. 3: e4902
<https://doi.org/10.3897/BDJ.3.e4902>
 95. Guralnick, Robert, Nico Cellinese, John Deck, **Richard Pyle**, John Kunze, Lyubomir Penev, Ramona Walls, Gregor Hagedorn, Donat Agosti, John Wieczorek, Terry Catapano, Roderic Page. 2015. Making Globally Unique Identifiers Work for Biocollections Data. *ZooKeys*. 494: 133-154. doi:10.3897/zookeys.494.9352.
 96. Angel Alonso-Zarazaga, Miguel, Bouchet, Philippe, **Pyle, R.L.**, Kluge, Nikita and Fautin, Daphne. 2016. Manual for proposing a Part of the List of Available Names (LAN) in Zoology. *ZooKeys* 2016(550):283-298.

97. Sinniger, Frederic, David L. Ballantine, Ivonne Bejarano, Patrick L. Colin, Xavier Pochon, Shirley A. Pomponi, Kimberly Puglise, **Richard L. Pyle**, Marjorie Reaka, Heather L. Spalding and Ernesto Weil. 2016. Chapter 4. Biodiversity of mesophotic coral ecosystems. pp. 50–62 *In*: Elaine K. Baker, Kimberly A. Puglise, Peter T. Harris (eds.) Mesophotic coral ecosystems - A lifeboat for coral reefs? The United Nations Environment Programme and GRID-Arendal, Nairobi and Arendal, 98 pp.
98. Pape, Thomas, Allen Allison, Daniel Bickel, James T. Carlton, Torsten Dikow, Tm Donegan, Donald W. Duszynski, Magdi S. El-Hawagry, Neal Evenhuis, Daphne Fautin, Stephen D. Gaimiri, Babak Gharali, Dale Edward Greenwalt, Hinrich Kaiser, Ashley H. Kirk-Spriggs, Gerardo Lamas, Owen Lonsdale, Christopher Mah, Stephen Marshall, Rudolf Meier, Michael Ohl, David J. Patterson, Lyubomir Penev, N. Dean Pentcheff, **Richard L. Pyle**, Daniel J. Rubinoff, Justin B. Runyon, Oliver Tallowin, Stephen Thorpe, Bo Wang, Francisco Welter-Schultes, Doug Yanega, Ding Juan Yang, Gang Yao, and Norine W. Yeung. 2016. Species can be named from photos. *Nature* 537:307.
99. Kosaki R. K., **R. L. Pyle**, J. C. Leonard, B.B. Hauk, R. K. Whitton, and D. Wagner. 2016. 100% endemism in mesophotic reef fish assemblages at Kure Atoll, Hawaiian Islands. *Marine Biodiversity*. 2016:1-2.
100. **Pyle, R.L.** 2016. Rebreather evolution in the foreseeable future. pp. 40–65, *In*: Pollock N.W., Sellers S.H., Godfrey J.M., (eds.) Rebreathers and Scientific Diving. Proceedings of NPS/NOAA/DAN/AAUS February 16–19, 2015 Workshop. Wrigley Marine Science Center, Catalina Island, CA; 2016; 272 pp.
101. **Pyle, R.L.**, P. Lobel & Joseph Tomoleoni. 2016. The value of closed-circuit rebreathers for biological research. pp. 120–134 *In*: Pollock N.W., Sellers S.H., Godfrey J.M., (eds.) Rebreathers and Scientific Diving. Proceedings of NPS/NOAA/DAN/AAUS February 16–19, 2015 Workshop. Wrigley Marine Science Center, Catalina Island, CA; 2016; 272 pp.
102. Laverick, Jack H., Dominic A. Andradi-Brown, Dan A. Exton, Pim Bongaerts, Tom C. L. Bridge, Michael P. Lesser, **Richard L. Pyle**, Marc Slattery, Daniel Wagner, and Alex D. Rogers (2016). To what extent do mesophotic coral ecosystems and shallow reefs share species of conservation interest? *Environmental Evidence*, 5(1):16. doi: 10.1186/s13750-016-0068-5
103. **Pyle, R. L.** and R.K. Kosaki. 2016. *Prognathodes basabei*, a new species of butterflyfish (Perciformes, Chaetodontidae) from the Hawaiian Archipelago. *ZooKeys* 614: 137-152. doi: 10.3897/zookeys.614.10200
104. Bradley, C.J., K. Longenecker, **R. L. Pyle** and B. Popp. 2016. Compound specific isotopic analysis of amino acids reveals dietary changes in mesophotic coral reef fish. *Marine Ecology Progress Series*. (Accepted for publication 15 August 2016)
105. **Pyle, R. L.**, Raymond Boland, Holly Bolick, Brian Bowen, Christina J. Bradley, Corrine Kane, Randall K. Kosaki, Ross Langston, Ken Longenecker, Anthony D. Montgomery, Frank A. Parrish, Brian N. Popp, John Rooney, Celia M. Smith, Daniel Wagner & Heather L. Spalding. 2016. A comprehensive investigation of mesophotic coral ecosystems in the Hawaiian Archipelago. *PeerJ* 4:e2475. doi: 10.7717/peerj.2475
106. **Pyle, R. L.**, R.K. Kosaki and B. D. Greene. 2016. *Tosanoides obama*, a new basslet (Perciformes, Percoidei, Serranidae) from deep coral reefs in the Northwestern Hawaiian Islands. *ZooKeys* 641: 165–181. doi: 10.3897/zookeys.641.11500
107. Thomson, Scott A., **Richard L. Pyle**, Shane T. Ahyong, Miguel Alonso-Zarazaga, Joe Ammirati, Juan Francisco Araya, John S. Ascher, Tracy Lynn Audisio, Valter M. Azevedo-Santos, Nicolas Bailly, William J. Baker, Michael Balke, Maxwell V. L. Barclay, Russell L. Barrett, Ricardo C. Benine, James R. M. Bickerstaff, Patrice Bouchard, Roger Bour, Thierry

Bourgoin, Christopher B. Boyko, Abraham S. H. Breure, Denis J. Brothers, James W. Byng, David Campbell, Luis M. P. Ceriaco, István Cernák, Pierfilippo Cerretti, Chih-Han Chang, Soowon Cho, Joshua M. Copus, Mark J. Costello, Andras Cseh, Csaba Csuzdi, Alastair Culham, Guillermo D'Elía, Cédric d'Udekem d'Acoz, Mikhail E. Daneliya, René Dekker, Edward C. Dickinson, Timothy A. Dickinson, Peter Paul van Dijk, Klaas-Douwe B. Dijkstra, Bálint Dima, Dmitry A. Dmitriev, Leni Duistermaat, John P. Dumbacher, Wolf L. Eiserhardt, Torbjørn Ekrem, Neal L. Evenhuis, Arnaud Faille, José L. Fernández-Triana, Emile Fiesler, Mark Fishbein, Barry G. Fordham, André V. L. Freitas, Natália R. Friol, Uwe Fritz, Tobias Frøslev, Vicki A. Funk, Stephen D. Gaimari, Guilherme S. T. Garbino, André R. S. Garraffoni, József Geml, Anthony C. Gill, Alan Gray, Felipe G. Grazziotin, Penelope Greenslade, Eliécer E. Gutiérrez, Mark S. Harvey, Cornelis J. Hazevoet, Kai He, Xiaolan He, Stephan Helfer, Kristofer M. Helgen, Anneke H. van Heteren, Francisco Hita Garcia, Norbert Holstein, Margit K. Horváth, Peter H. Hovenkamp, Wei Song Hwang, Jaakko Hyvönen, Melissa B. Islam, John B. Iverson, Michael A. Ivie, Zeehan Jaafar, Morgan D. Jackson, J. Pablo Jayat, Norman F. Johnson, Hinrich Kaiser, Bente B. Klitgård, Dániel G. Knapp, Jun-ichi Kojima, Urmas Kõljalg, Jenő Kontschán, Frank-Thorsten Krell, Irmgard Krisai-Greilhuber, Sven Kullander, Leonardo Latella, John E. Lattke, Valeria Lencioni, Gwilym P. Lewis, Marcos G. Lhano, Nathan K. Lujan, Jolanda A. Luksenburg, Jean Mariaux, Jader Marinho-Filho, Christopher J. Marshall, Jason F. Mate, Molly M. McDonough, Ellinor Michel, Vitor F. O. Miranda, Mircea-Dan Mitroiu, Jesús Molinari, Scott Monks, Abigail J. Moore, Ricardo Moratelli, Dávid Murányi, Takafumi Nakano, Svetlana Nikolaeva, John Noyes, Michael Ohl, Nora H. Oleas, Thomas Orrell, Barna Páll-Gergely, Thomas Pape, Viktor Papp, Lynne R. Parenti, David Patterson, Igor Ya. Pavlinov, Ronald H. Pine, Péter Poczai, Jefferson Prado, Divakaran Prathapan, Richard K. Rabeler, John E. Randall, Frank E. Rheindt, Anders G. J. Rhodin, Sara M. Rodríguez, D. Christopher Rogers, Fabio de O. Roque, Kevin C. Rowe, Luis A. Ruedas, Jorge Salazar-Bravo, Rodrigo B. Salvador, George Sangster, Carlos E. Sarmiento, Dmitry S. Schigel, Stefan Schmidt, Frederick W. Schueler, Hendrik Segers, Neil Snow, Pedro G. B. Souza-Dias, Riaan Stals, Soili Stenroos, R. Douglas Stone, Charles F. Sturm, Pavel Štys, Pablo Teta, Daniel C. Thomas, Robert M. Timm, Brian J. Tindall, Jonathan A. Todd, Dagmar Triebel, Antonio G. Valdecasas, Alfredo Vizzini, Maria S. Vorontsova, Jurriaan M. de Vos, Philipp Wagner, Les Watling, Alan Weakley, Francisco Welter-Schultes, Daniel Whitmore, Nicholas Wilding, Kipling Will, Jason Williams, Karen Wilson, Judith E. Winston, Wolfgang Wüster, Douglas Yanega, David K. Yeates, Hussam Zaher, Guanyang Zhang, Zhi-Qiang Zhang, and Hong-Zhang Zhou. 2018. Taxonomy based on science is necessary for global conservation. *PLoS Biology* 16(3):e2005075. doi: 10.1371/journal.pbio.2005075

108. Kosaki, R. K., R. K. Whitton, **R. L. Pyle** & J. L. Earle. In Prep. Annotated Checklist of the Northwestern Hawaiian Islands.

109. **Pyle, R. L.** In Prep. A new species of the damselfish genus *Chromis* (Perciformes: Labroidae: Pomacentridae) from deep coral reefs in the tropical southeastern Pacific *Biodiversity Data Journal*.

Popular and Semi-Popular:

110. **Pyle, R.L.** 1988. The Burgess' Butterflyfish *Roaops burgessi* (Allen and Starck Its collection, maintenance, and classification. *Freshwater Mar. Aquar.* 11(1):32–37, 9 figs. + cover.

111. **Pyle, R.L.** 1988. Adventures in collecting marine fishes: *Centropyge colini*. *Trop. Mar. Aquar.* 20:56–58, 10 figs. (In Japanese)

112. **Pyle, R.L.** 1989. Rare and Unusual Marines: Helfrich's Dartfish *Nemateleotris helfrichi* Randall and Allen. *Freshwater Mar. Aquar.* 12(2):16–17, 3 figs. + cover.
113. **Pyle, R.L.** 1989. Rare and Unusual Marines: Griffis' Angelfish *Apolemichthys griffisi* (Carlson and Taylor). *Freshwater Mar. Aquar.* 12(3):96–98, 3 figs.
114. **Pyle, R.L.** 1989. Rare and Unusual Marines: The Armitage Angelfish *Apolemichthys armitagei* Smith. *Freshwater Mar. Aquar.* 12(4):26–27, 3 figs.
115. **Pyle, R.L.** and R.K. Kosaki. 1989. Adventures in Collecting: *Roaoops flavocoronatus*. *Trop. Mar. Aquar.* 24:3–5, 7 figs. (In Japanese).
116. **Pyle, R.L.** 1989. Rare and Unusual Marines: The Goldflake Angelfish *Apolemichthys xanthopunctatus* Burgess. *Freshwater Mar. Aquar.* 12(5):96–100, 3 figs.
117. **Pyle, R.L.** 1989. Rare and Unusual Marines: Lori's Fancy Sea Bass *Pseudanthias lori* (Lubbock and Randall). *Freshwater Mar. Aquar.* 12(6):34–36, 2 figs.
118. **Pyle, R.L.** 1989. Rare and Unusual Marines: Whitley's Boxfish *Ostracion whitleyi* Fowler. *Freshwater Mar. Aquar.* 12(7):58,62–64, 2 figs. + cover. (Cover photo of *Apolemichthys xanthopunctatus*)
119. **Pyle, R.L.** 1989. Rare and Unusual Marines: The Headband Butterflyfish *Chaetodon mitratus* Günther. *Freshwater Mar. Aquar.* 12(8):26–28, 3 figs. + cover.
120. **Pyle, R.L.** 1989. Rare and Unusual Marines: Bartlett's Anthias *Pseudanthias bartlettorum* Randall and Lubbock. *Freshwater Mar. Aquar.* 12(9):65–74, 2 figs.
121. **Pyle, R.L.** and R.K. Kosaki. 1989. Rare and Unusual Marines: The Blackspot Angelfish *Centropyge nigriocellus* Schultz. *Freshwater Mar. Aquar.* 12(10):98–101, 4 figs.
122. **Pyle, R.L.** 1989. What is this fish? Introducing a new form of *Roaoops* butterflyfish! *Trop. Mar. Aquar.* 26:15–17, 11 figs. (In Japanese)
123. **Pyle, R.L.** and L.A. Privitera. 1989. Rare and Unusual Marines: The Harlequin Hind *Cephalopholis polleni* (Bleeker). *Freshwater Mar. Aquar.* 12(12):42–45, 2 figs. + cover.
124. **Pyle, R.L.** and L.A. Privitera. 1990. Rare and Unusual Marines: The Midas Blenny *Ecsenius midas* Starck. *Freshwater Mar. Aquar.* 13(1):32–35, 3 figs.
125. **Pyle, R.L.** and L.A. Privitera. 1990. Rare and Unusual Marines: The Black and Gold *Dascyllus Dascyllus trimaculatus* (Var.) (Ruppell). *Freshwater Mar. Aquar.* 13(2):24–28, 3 figs.
126. **Pyle, R.L.** 1990. Book Review: *Micronesian Reef Fishes*. *Freshwater Mar. Aquar.* 13(2):126.
127. **Pyle, R.L.** 1990. Rare and Unusual Marines: The Japanese Pygmy Angelfish *Centropyge interruptus* (Tanaka). *Freshwater Mar. Aquar.* 13(3):32–37, 3 figs. + cover.
128. Privitera, L.A. and **R.L. Pyle**. 1990. Rare and Unusual Marines: The Black Longnose Tang *Zebrasoma rostratum* (Günther). *Freshwater Mar. Aquar.* 13(4):69–73, 3 figs.
129. Kosaki, R.K. and **R.L. Pyle**. 1990. *Chaetodon flavocoronatus*, the Yellow-crowned Butterflyfish. *Freshwater Mar. Aquar.* 13(6):16–20, 5 figs. + cover. (Cover photo by R.K. Kosaki)
130. **Pyle, R.L.** 1990. Rare and Unusual Marines: The Gem Tang *Zebrasoma gemmatum* (Cuvier and Valenciennes). *Freshwater Mar. Aquar.* 13(8):72,74,78, 3 figs. + cover.
131. **Pyle, R.L.** 1990. Rare and Unusual Marines: The African Butterflyfish *Chaetodon dolosus* Ahl. *Freshwater Mar. Aquar.* 13(9):144,118,120, 2 figs.
132. **Pyle, R.L.** 1990. Rare and Unusual Marines: The Masked Angelfish *Genicanthus personatus* Randall. *Freshwater Mar. Aquar.* 13(10):112,114,116,118, 4 figs. + cover.
133. **Pyle, R.L.** 1990. Rare and Unusual Marines: The Mauritian Clownfish *Amphiprion chrysogaster* Cuvier. *Freshwater Mar. Aquar.* 13(12):64–66,179, 3 figs. + cover.
134. **Pyle, R.L.** 1991. Rare and Unusual Marines: *Chaetodon daedalma* Jordan and Fowler. *Freshwater Mar. Aquar.* 14(1):74,76,78,81, 3 figs. + cover. (Cover photo by J.L. Earle)

135. Pyle, R.L. 1991. Rare and Unusual Marines: So many fish, so little time. *Freshwater Mar. Aquar.* 14(4):42–44, 3 figs. + cover (Cover photo of *Liopropoma aurora*).
136. Pyle, R. L. 1991. [Adventures in collecting: Introducing two new species of angelfishes of the genus *Centropyge*]. *Tropical Marine Aquarium* 32(Spring): 27–29.
137. Pyle, R.L. 1991. Rare and Unusual Marines: Clearing the Air. *Freshwater Mar. Aquar.* 14(8):51–53.
138. Pyle, R.L. 1991. Majestäten im meer. *Das Tier* 1991(9):34–37, 10 figs. (In German)
139. Pyle, R.L. 1991. Ein schatz aus der zwielichtzone. *Unterwasserfotografie (UWF)* 1991(3):114–117, 2 figs. + cover. (In German)
140. Pyle, R.L. 1991. Rare and Unusual Marines: The Hawaiian deep anthias *Holanthias fuscipinnis* (Jenkins). *Freshwater Mar. Aquar.* 14(12):74–78, 2 figs. + cover. (Cover photo by M. Severns)
141. Pyle, R.L. 1991. Sharks: A Diver's Perspective. In: Suzumoto, A., Sharks Hawai'i. Bishop Musuem Press. pp. 39–44, 9 figs.
142. Pyle, R.L. 1992. Pyle on mix. *AquaCorps: Mix.* 3(1):20, 1 fig.
143. Pyle, R.L. 1992. Deep reef set. *AquaCorps: Mix.* 3(1):17–21, 4 figs.
144. Pyle, R.L. 1992. Rare and Unusual Marines: A hybrid angelfish *Centropyge flavissimus x eibli*. *Freshwater Mar. Aquar.* 15(3):98–110, 212, 8 figs. + cover.
145. Pyle, R.L. 1992. Rare and unusual marines: the clown triggerfish *Balistoides conspicillum*. *Freshwater Mar. Aquar.* 15(5):98–107, 4 figs. + cover (Cover photo by J. Godwin).
146. Pyle, R.L. 1992. *Nemateleotris helfrichi*. *DATZ* 1992(5):297, 1 fig.
147. Pyle, R.L. 1992. Rare and unusual marines: Another hybrid angelfish *Centropyge loriculus x potteri*. *Freshwater Mar. Aquar.* 15(8):40–45, 3 figs. + cover.
148. Pyle, R.L. 1992. Feuer im meer: Lava. *Unterwasserfotografie (UWF)* 1992(1):24–30, 10 figs. (In German)
149. Pyle, R.L. 1992. Rare and Unusual Marines: The neon wrasse *Bodianus sanguineus* (Jordan and Evermann). *Freshwater Mar. Aquar.* 15(12):144–147, 150, 2 figs.
150. Pyle, R.L. 1993. In-water recompression: The Hawaiian experience. *AquaCorps: BENT* 3(2):50.
151. Pyle, R.L. 1993. Marine aquarium fish collecting and the environment. *Aquar. Frontiers.* 1(1):7–14.
152. Pyle, R.L. 1993. Confessions of a mortal diver: Learning the hard way. *AquaCorps: BENT* 3(2):51, 54.
153. Pyle, R.L. 1993. Rare and unusual marines: Getting back on track. *Freshwater Mar. Aquar.* 16(10):43–46.
154. Pyle, R.L. 1993. Rare and unusual marines: The golden angelfish *Centropyge aurantius* Randall and Wass. *Freshwater Mar. Aquar.* 16(11): 104, 108, 112, 3 figs. + cover.
155. Pyle, R.L. 1993. Book Review: *The Manual of Underwater Photography* (deCouet & Green). *Hawaiian Shell News*, 42(1):10–11.
156. Pyle, R.L. 1994. Rare and unusual marines: The Narc Angelfish *Centropyge narcosis* Pyle and Randall. *Freshwater Mar. Aquar.* 7(4):8–19., 3 figs + cover.
157. Pyle, R.L. (with contributions from J. Crea, and P. Sharkey). 1994. Diving into the Internet. *aquaCorps*, 9:96,110.
158. Pyle, R.L. 1995. Madame Pele's fury. *aquaCorps*, 12:21–23.
159. Pyle, R.L. 1995. High PO₂ symptoms – my experiences. *Nitrox Australasia*, 2(3):3–4, 6.
160. Pyle, R.L. 1996. Editorial. The Importance of Deep Safety Stops: Rethinking Ascent Patterns From Decompression Dives. *DeepTech*, 5:64.

161. **Pyle, R.L.** 1996. The Importance of Deep Safety Stops: Rethinking Ascent Patterns From Decompression Dives. *Cave Diving Group Newsletter*, 121:2–5.
162. **Pyle, R.L.** 1997. Confessions of a mortal diver, a true story. *Northwest Dive News*. February, 1997:4.
163. **Pyle, R.L.** 1997. In-water recompression (Letter to the Editor). *SPUMS J.* 27(3):143.
164. Tanaka, H. and **R.L. Pyle**. 1997. Roa butterflyfishes. *Marine Aquarist*. No. 4 (Summer): 73–78. In Japanese.
165. **Pyle, R.L.** 1998. Excerpt from “A Learner’s Guide to Closed Circuit Rebreather Diving”. pp. 64–67. *In: Cole, B. Rebreather Diving*. Sandford Press, Reading (England). xvi +112 pp.
166. **Pyle, R.L.** 2002. Forward. pp.xiii–xv. *In: Bozanic, J.E. Mastering Rebreathers*. Best Publishing, Flagstaff. xxvii+548 pp.
167. **Pyle, R.L.** 2002. Forward. p. 2. *In: Gurr, K. Technical Diving from the Bottom Up*. Phoenix Oceaneering Ltd., Poole, Dorset, UK. 251 pp.
168. **Pyle, R.L.** 2002. Bending the Rules. Pp. 167-171 *In: Crow, Gerald L. and Jennifer Crites. Sharks and rays of Hawai‘i*. Mutual Publishing, Honolulu.i-xi+1-203.
169. **Pyle, R.L.** 2003. A Biodiversity Crisis, pp. 98–99. *In: Stephens, J. Living Mirrors: A Coral Reef Adventure*. Umbrage Editions, New York.
170. Carpenter, K.E. and **R.L. Pyle**. 2005. John E. Randall, Recipient of the First Bleeker Award in Systematics. The Ichthyological Society of Japan.
<http://www.fish-isj.jp/english/meeting.html>
171. Randall, J.E., C. Birkeland, **R.L. Pyle**, and R. Kosaki. 2007. The case against lay gill nets. *Hawaii Fishing News* 32(8): 22–24.
172. Randall, J.E., C. Birkeland, **R.L. Pyle**, and R. Kosaki. 2007. Isles' reef fish need protection from bad harvesting methods: The case against lay gill nets. *Honolulu Star Bulletin*. 11(204). 23 July 2006.
173. **Pyle, R.L.** 2008. Exploring the Twilight Zone. *Ka ‘Elele: The Messenger. The Journal of Bernice Pauahi Bishop Museum*. Spring 2008:6–8+cover.
174. **Pyle, R.L.** 2010. Natural Science: Deep discoveries in the Papahānaumokuākea Marine National Monument (PMNM). *Ka ‘Elele: The Messenger. The Journal of Bernice Pauahi Bishop Museum*, Fall 2010: 8–10+cover.
175. **Pyle, R.** 2012. 5 things I love about... Hawaii’s reef. *Hawaii Magazine*. September/October 2012.
176. **Pyle, R.L.** 2014. Cataloging the World’s Greatest Library. *Ka ‘Elele: The Messenger. The Journal of Bernice Pauahi Bishop Museum*. Fall 2014:20–21
177. **Pyle, R.L.** 2015. An Enduring Legacy. *Ka ‘Elele: The Messenger. The Journal of Bernice Pauahi Bishop Museum*. Winter 2015:15.
178. **Pyle, R.L.** 2015. Deeply Unique: Endemism in the Northwestern Hawaiian Islands. *Ka ‘Elele: The Messenger. The Journal of Bernice Pauahi Bishop Museum*. Summer 2016:11.
179. **Pyle, Richard, John Randall, Bruce Carlson.** 2017. Editorial: Aquarium fish industry sustainable. *Honolulu Star-Advertiser*. 31 May 2017. Additional signatories: Randall Kosaki and Leighton Taylor.
180. **Carlson, B. and R. Pyle.** Banning aquarium fishing wrong for Hawaii. *West Hawaii Today*. 23 June 2017. <http://www.westhawaii.com/opinion/columns/banning-aquarium-fishing-wrong-hawaii>

Online Blogs:

181. **Pyle, R.L.** 1997. Daily Log Report for 4 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 4 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/4may97log.html>).
182. **Pyle, R.L.** 1997. Daily Log Report for 5 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 5 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/5may97log.html>).
183. **Pyle, R.L.** 1997. Daily Log Report for 6 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 6 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/6may97log.html>).
184. **Pyle, R.L.** 1997. Daily Log Report for 7 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 7 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/7may97log.html>).
185. **Pyle, R.L.** 1997. Daily Log Report for 8 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 8 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/8may97log.html>).
186. **Pyle, R.L.** 1997. Daily Log Report for 9 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 9 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/9may97log.html>).
187. **Pyle, R.L.** 1997. Daily Log Report for 10 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 10 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/10may97log.html>).
188. **Pyle, R.L.** 1997. Daily Log Report for 11 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 11 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/11may97log.html>).
189. **Pyle, R.L.** 1997. Daily Log Report for 12 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 12 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/12may97log.html>).
190. **Pyle, R.L.** 1997. Daily Log Report for 13 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 13 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/13may97log.html>).
191. **Pyle, R.L.** 1997. Daily Log Report for 14 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 14 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/14may97log.html>).
192. **Pyle, R.L.** 1997. Daily Log Report for 15 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May

1997. 15 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/15may97log.html>).
193. **Pyle, R.L.** 1997. Daily Log Report for 16 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 16 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/16may97log.html>).
194. **Pyle, R.L.** 1997. Daily Log Report for 17 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 17 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/17may97log.html>).
195. **Pyle, R.L.** 1997. Daily Log Report for 18 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 18 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/18may97log.html>).
196. **Pyle, R.L.** 1997. Daily Log Report for 19 May 1997. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Palau 'Twilight Zone' Expedition, 4–19 May 1997. 19 May 1997
(<http://www.bishopmuseum.org/research/treks/palautz97/19may97log.html>).
197. **Pyle, R.L.** 2001. Log Report for 16 May 2001. B. P. Bishop Museum Exploration and Discovery. The Coral-Reef Twilight Zone: Fagatele Bay National Marine Sanctuary, 14–18 May 2001. 19 May 1997
(<http://www2.bishopmuseum.org/PBS/samoatz01/16may01log.html>).
198. **Pyle, R.L.** 2011. Submersibles, Camera, Action! New York Times Green Blog. 21 December 2011 (<http://green.blogs.nytimes.com/2011/12/21/cameras-submersibles-action/>).
199. **Pyle, R.L.** 2011. A Visual Feast in an Undersea Twilight Zone. New York Times Green Blog. 26 December 2011 (<http://green.blogs.nytimes.com/2011/12/26/a-visual-feast-in-an-undersea-twilight-zone/>).
200. **Pyle, R.L.** 2011. A Parade of Sharks, Dazzling Yet Diminished. New York Times Green Blog. 28 December 2011. (<http://green.blogs.nytimes.com/2011/12/28/a-parade-of-sharks-lively-yet-diminished/>).
201. **Pyle, R.L.** 2011. High-Tech Tools, Primeval Wonders. New York Times Green Blog. 30 December 2011 (<http://green.blogs.nytimes.com/2011/12/30/high-tech-tools-primeval-wonders/>).
202. **Pyle, R.L.** 2011. A Choreographic Feeding Frenzy. New York Times Green Blog. 3 January 2012 (<http://green.blogs.nytimes.com/2012/01/03/a-choreographic-feeding-frenzy/>).
203. **Pyle, R.L.** 2011. The Race to Document Biodiversity. New York Times Green Blog. 5 January 2012 (<http://green.blogs.nytimes.com/2012/01/05/the-race-to-document-biodiversity/>).
204. **Pyle, R.L.** 2013. Christmas in July: A deep look at new species! Diving in Depth. 22 May 2013. (<http://www.divingindepth.com/christmas-in-july/>).
205. Pyle, R.L. 2014.
206. Pyle,

APPENDIX B

Comments Received on the DEA and Responses

Comment No.	Commentor	State/Location	Date Received	Comment	Response
1-1	RT Distributors Inc.	HI	4/12/2018	Abundant populations of flame wrasse and fishers angels around Oahu, based on observations, GPS coordinates, and video from their dives.	Comment noted. Additional information on Fisher's Angelfish densities at lower water depths has been added to the O'ahu FEA in Section 5.4.1.2.3. Additional information on Flame Wrasse densities at lower water depths has been added to the O'ahu FEA in Sections 4.4.4.6 and 5.4.1.2.1.
1-2	RT Distributors Inc.	HI	4/12/2018	Believes data in report on fishers angels, as well as other species, is in error due to their ability to take cover during counts/video.	Comment noted. Additional information on Fisher's Angelfish densities at lower water depths has been added to the O'ahu FEA in Section 5.4.1.2.3.
2-1	Michael Corsale	HI	4/12/2018	Harvesting has an effect on populations, such as the plethora of Yellow Tangs that is now much reduced.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). In addition, Section 5.4.1.2.1 of the Hawaii FEA includes information from the DAR illustrating increasing populations of Yellow Tang in West Hawaii within all areas, including open areas (see Table 10 and Figure 5).
2-2	Michael Corsale	HI	4/12/2018	Eco-tourism would create many jobs.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including the various aspects of your comment. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
2-3	Michael Corsale	HI	4/12/2018	The collectors will increase if permitted.	Comment noted. Please see Table 3 in the Hawai'i FEA and Table 2 in the O'ahu FEA. Although the number of collectors has fluctuated over the past 18 years, there have been no substantial increases or decreases. The technical and administrative aspects of the industry require experience and expertise which has likely been the reason for the stability in numbers. Therefore, although the number of permits issued may change over the assessment period, the actual number of collectors is not likely to change significantly.
2-4	Michael Corsale	HI	4/12/2018	Follow Australia's example of allowing zero collecting.	Comment noted.
3-1	Mary Menacho	HI	4/19/2018	Requesting better environmental analysis (full environmental impact statement).	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
3-2	Mary Menacho	HI	4/19/2018	Ocean health as highest priority, rather than financial.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher 2003 and a long-term DAR coral monitoring program) have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
4-1	Evelyn Lennon	NJ	4/19/2018	Worry of dwindling populations and repercussions; ecosystem should decide what stays and what goes.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
5-1	Thomas Nakagawa	N/A	4/10/2018	Stop selling off the active tourist trade.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
6-1	Kevin & Noni O'Connor	HI	4/18/2018	No benefit, except for the few involved in fish collecting; ban aquarium fish collecting.	Comment noted. Section 5 of each FEA analyzes the potential adverse and beneficial impacts the fishery would contribute to Hawai'i and O'ahu under the various alternatives.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
6-2	Kevin & Noni O'Connor	HI	4/18/2018	Consider the tourism industry.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics the various aspects of your comment. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
7-1	Jonathan Balcombe	N/A	4/11/2018	Cease capture and export of native fish; right to live in natural homes.	Comment noted.
7-2	Jonathan Balcombe	N/A	4/11/2018	Fearful fish behavior observed in areas where they are captured.	Comment noted.
8-1	Jane Taylor	HI	4/10/2018	Too short of time to see any impacts of ceasing/continuing aquarium fish collection; have watched reefs change for the worse over the years.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As described in the FEAs, this is based off of 18 years of collection data and the best available science. Cumulative impacts of commercial aquarium collection over multiple years is discussed in Section 5.4.3.3 of both FEAs.
8-2	Jane Taylor	HI	4/10/2018	Reef fish eating algae can help coral regenerate; no collecting would be one small contribution towards the health of the embattled reef systems.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
9-1	Diane Aliperti	N/A	4/17/2018	Stop fish collections at coral reefs.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
10-1	Bob Smith	HI	4/10/2018	Data in DEA is not applicable due to severe 2015/2016 coral bleaching events with effects on fish populations.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. These datasets predate the period at issue. Peer reviewers confirm data are accurate.
10-2	Bob Smith	HI	4/10/2018	Yellow Tang are needed to eat algae off of the reef.	Comment noted. The specific life history of Yellow Tang is described in Section 4.4.1 of both the Hawai'i and O'ahu FEA. Reef impacts are found in Section 5.4.1.2.4 in the Hawai'i FEA and Section 5.4.1.2.5 in the O'ahu FEA. In addition, given the conclusions in the FEAs that commercial aquarium collection is not significantly impacting the populations of any of the White List Species on the island of Hawai'i or the top 20 collected species in O'ahu, the species are anticipated to continue to serve their functions in the ecosystem. In addition, as noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
10-3	Bob Smith			Need to discuss cumulative and secondary impacts beyond one year, as outlined in Hawaii law.	Under HRS 188-31, the DLNR may issue an Aquarium Permit not longer than one year in duration; therefore, a temporal scope of one year is appropriate. DLNR will reevaluate the analysis contained in the FEA on an annual basis prior to renewal or issuance of commercial Aquarium Permits and will assess if any new information exists warranting reevaluation of the analysis presented in the FEA.
11-1	Kathryn Reynolds	N/A	4/10/2018	Ignoring Hawaii's future and tourism for the profit of a few individuals.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
12-1	Rick Umphress	HI	4/20/2018	Benefits of divers in monitoring reef condition.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
12-2	Rick Umphress	HI	4/20/2018	Real reef killers are run off, too many people; assigning blame to one small industry.	Comment noted. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
13-1	Gary Goldberg	NJ	4/16/2018	Requesting better environmental assessment.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
14-1	Emily Norton	MA	4/16/2018	Preserve wild fish populations.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
15-1	Sadie Schrader	N/A	4/17/2018	Nearly one million tropical fish sold from Hawaii's reefs per year.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
15-2	Sadie Schrader	N/A	4/17/2018	Fish collection further threatens the coral reefs, as well as being cruel and unsustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
16-1	Clova Abrahamson	OK	4/16/2018	Request more complete evaluation of the impact of commercial tropical fish collection.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
17-1	Rabecca	N/A	4/16/2018	Stop harvesting tropical fish to allow species recovery.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
18-1	Halszka Sangowicz	N/A	4/16/2018	Greed will destroy aquatic beauty.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
19-1	Laurie Hillyard	HI	4/20/2018	Fisheries are not sustainable; allow a few to profit on the permanent loss to a delicate ecosystem.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
19-2	Laurie Hillyard	HI	4/20/2018	Aquarium industry should breed and grow their own stock.	Comment noted. The FEAs analyze the impact of comemrcial aquarium collection on the environment.
20-1	Scott Folsom	HI	4/22/2018	Hawaii's aquarium industry is sustainable, as demonstarted by the science.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
20-2	Scott Folsom	HI	4/22/2018	Aquarium industry complies with the reporting requirements, have proposed regulations/limitations on collecting activities, avoid areas used by tourists, and have a vested interest in protecting the ocean and its resources.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
21-1	Tullio Dell Aquila	NJ	4/22/2018	The proposed regulation would disrupt 2.5 million dollars in business for Hawaii, affect income for local residents, and significantly impact local economies.	Comment noted. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
21-2	Tullio Dell Aquila	NJ	4/22/2018	Many of the islanders affected know of no other way of life or income.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
22-1	Martin Wisner	HI	4/20/2018	Permitted collecting zones greatly reduce the area allowed for legal commercial fish collecting (65% of the west coast is protected) and have been proven to work to protect fish populations.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Cumulative impacts from other sources, including tourism, are discussed in Section 5.4.3 of both FEAs.
22-2	Martin Wisner	HI	4/20/2018	The majority of long term fish collectors are very careful; are not "evil destroyers of the reefs" as described by people who disapprove of commercial fish collecting.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
22-3	Martin Wisner	HI	4/20/2018	Look carefully at EA and not at what those who make statements based on emotion say.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
23-1	Coral Fish Hawaii	HI	4/19/2018	The EA shows that the most studied fishery in Hawaii is sustainable and I (wholesaler, retailer, collector) know this to be true and care about the fish, ocean, ecosystem.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
23-2	Coral Fish Hawaii	HI	4/19/2018	Animal rights activists have distorted the truths of the industry with lies about declining fish populations.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
23-3	Coral Fish Hawaii	HI	4/19/2018	Follow the science and accept the EA, allowing collectors to continue to use small meshed nets.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
24-1	Dave Ramos	HI	4/20/2018	Fish collectors know how to move around and allow fish to reproduce and replenish the reefs, contrary to the false information given by the "powers to be."	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
24-2	Dave Ramos	HI	4/20/2018	The science and history of fish collection in Hawaii shows that it is sustainable.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
24-3	Dave Ramos	HI	4/20/2018	The majority of local Hawaiian people recognize the fishing culture, and the agenda of the anti fish collection people is to take away that culture and give back nothing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
25-1	Edward Johnson	N/A	4/20/2018	The EA shows a valid study and should be recognized as such by the courts and state government to avoid unnecessary regulatory actions in Oahu and other affected island water fish populations in Hawaii.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
26-1	Pacific Planktonics	HI	4/20/2018	Collectors working with DAR, research on the fishery, and permitting based on government studies of fish abundance have helped regulate the industry and make things sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
26-2	Pacific Planktonics	HI	4/20/2018	Hawaii's reefs are in decline over the past decade due to coral depletion as the result of runoff, pollution, and extremely warm weather.	Comment noted. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
26-3	Pacific Planktonics	HI	4/20/2018	Support of responsible collectors because aquaculture cannot provide all aquarium fish.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
26-4	Pacific Planktonics	HI	4/20/2018	Random airport inspections of fish being shipped out of state could help assure compliance, but the banning of collection is not justified by DAR's data.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
27-1	Ryan Snodgrass	N/A	4/20/2018	The industry is sustainable per the DLNR; must involve bringing in industry and the public.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
28-1	David Sommers	HI	4/20/2018	The aquarium trade mainly harvests juvenile fish, which have a 97% natural mortality rate; when harvested, they have an overwhelming probability of a long life.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
28-2	David Sommers	HI	4/20/2018	The actual mortality rate in shipping is 0.01%, as opposed to the 95% being reported elsewhere.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
29-1	Linda Purcell	N/A	4/21/2018	The tropical fish industry is sustainable (per DLNR), and the ocean can support nature and the industry.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
30-1	Brian Bowen	HI	4/21/2018	The EAs are accurate and backed by a large volume of good science, with aquarium fish collecting having an undetectably low impact on the environment.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
30-2	Brian Bowen	HI	4/21/2018	The snorkel tourism industry is what needs regulation due to the damage caused to the reefs.	Comment noted. Impacts from tourism are discussed in Section 5.4.3.4 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
30-3	Brian Bowen	HI	4/21/2018	Eliminating ornamental fish capture, a model of sustainable fishing, would damage the economy and embarrass the Hawaiian government.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
31-1	National Aquarium	MD	4/22/2018	Please accept the environmental assessment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
32-1	Richard Buchner	N/A	4/21/2018	Support and recommend the EA; tropical fish industry is valuable to education and the economy, keeping future generations interested in environmental issues.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
33-1	David Pangayan	N/A	4/21/2018	Approve of the EA and agree with the Department of Land and Natural Resources that the tropical fishery in Hawaii is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
34-1	Reefco Aquarium Service	NJ	4/22/2018	Support of EA, proving that collection for the aquarium trade is not causing harm to the reefs or fish populations.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
34-2	Reefco Aquarium Service	NJ	4/22/2018	Reported in the Hawaii Tribune-Herald: "Analysis found collection rates of less than 1 percent of the population of 37 of the allowed aquarium fish species and less than 5 percent of the other three species around Hawaii Island. Research suggests collection of between 5 percent and 25 percent is sustainable for the various reef species, the report says."	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
35-1	Lisa L. Anderson	HI	4/22/2018	The reef fish that the aquarium fisherman catch are done so in numbers that can sustain the natural reef fish population (would ruin their livelihoods if done otherwise).	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
35-2	Lisa L. Anderson	HI	4/22/2018	Please reinstate the permits and end the discrimination against the legal and ethical aquarium fish industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
36-1	Merit Imports Inc.	NJ	4/23/2018	Sustainability and the aquarium trade work hand in hand - people have aquariums because of their care for nature.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
36-2	Merit Imports Inc.	NJ	4/23/2018	Allows for strides in captive marine breeding and coral propagation, which could eventually be used to repopulate areas affected by the real problems causing fish loss (pollution, pesticide runoff, waste water, dredging, global warming).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Cumulative impacts from other sources, including global warming, are discussed in Section 5.4.3 of both FEAs.
36-3	Merit Imports Inc.	NJ	4/23/2018	Divers know that their livelihoods depend on keeping the reefs and fish numbers healthy for the future.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
36-4	Merit Imports Inc.	NJ	4/23/2018	Economic impact extends to box makers, bag suppliers, tank manufacturers, filtration companies, lighting manufacturers, freight carriers, wholesale distributors, retail outlets, while the impact to the environment is minimal.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
36-5	Merit Imports Inc.	NJ	4/23/2018	Studies have not been conducted on the numbers of fish caught and the relationship to numbers in the wild; size and numbers of collection of species is the answer.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
37-1	Merlin Contracting and Developing	NV	4/23/2018	Support permits for Hawaii's professional aquarium fish collectors in the best managed and regulated fishery in the world.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
37-2	Merlin Contracting and Developing	NV	4/23/2018	People are reminded of Hawaii's special and unique place in the world when they see a Yellow Tang in an aquarium.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
37-3	Merlin Contracting and Developing	NV	4/23/2018	Opportunities found in the islands' challenging economic environments should be recognized, supported, and managed as scientifically sustainable industries valuable to Hawaii's economy.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
38-1	Tom Lodge	HI	4/23/2018	Bans always disenfranchise without due process; do not include the totality of the constituency affected to work together to manage responsibly.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
38-2	Tom Lodge	HI	4/23/2018	The recent assessments belie any need for additional outside management, and a court is not a manager nor representative of science (compare to Mauna Kea and Kaupulehu).	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
38-3	Tom Lodge	HI	4/23/2018	Isn't it likely that aquarium fish might actually survive longer in aquariums than in the wild, where they are subjected to predation and uncertainty?	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
39-1	Laura Reid	CT	4/24/2018	Assessments are thorough, comprehensive, appear to include all available research, and show populations are stable/increasing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
39-2	Laura Reid	CT	4/24/2018	Respected scientists who peer-reviewed the research and data also support the sustainability of the Hawaiian fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
40-1	Michael Wiskoski	MO	4/24/2018	The practice is sustainable when limits are set and populations are taken into account; should be available to all legal collectors when done conservatively.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
40-2	Michael Wiskoski	MO	4/24/2018	Jobs are created with both the collection of the specimens and monitoring of the industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
41-1	Michael Hennessy	FL	4/24/2018	Data is impressive, substantial, drawn from numerous records, well documented, and does not include any gaps/omissions in pertinent data; draws reasonable conclusions about there being any unlikely negative consequences.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
41-2	Michael Hennessy	FL	4/24/2018	If the decision is based on science rather than politics, it should favor the aquarium fishers.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
41-3	Michael Hennessy	FL	4/24/2018	Target, white list species are stable/growing and not threatened by aquarium collectors (Achilles Tang details may not mesh with current data and fish collection locales).	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.
41-4	Michael Hennessy	FL	4/24/2018	Commercial food fishery catch and size limits may be needed so that mature, breeding fishes are better protected.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.
42-1	Alice G. Fernley	N/A	4/24/2018	Support of the EA; impressed with the educational benefits associated with many of the businesses (educate children while demonstrating care and respect for the environment).	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
43-1	All Things Aquariums	OR	4/24/2018	The current standard in Hawaii should be shared with the world to create these collection practices everywhere; Hawaii sets the bar for sustaining the species desired for the aquarium trade.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
44-1	City and County of Honolulu	HI	4/19/2018	No comments on the Project at this time.	Comment noted.
45-1	Michael Schrader	N/A	4/24/2018	We in the marine hobby work to put time, money, and resources into the sustainability of the trade.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
45-2	Michael Schrader	N/A	4/24/2018	New success each year with captive breeding, with hopes to discontinue the removal of fish from their natural habitat in the future	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
45-3	Michael Schrader	N/A	4/24/2018	A safe, sustainable, natural collection can be managed well with the current laws in place.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
46-1	Walter and Theresa Andreae	HI	4/24/2018	The 50 year industry has proven to be the best managed and regulated near shore fishery in the world.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
46-2	Walter and Theresa Andreae	HI	4/24/2018	Aquariums provide joy and education to people around the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
46-3	Walter and Theresa Andreae	HI	4/24/2018	Are aware and impressed with the careful and respectful practice of this fishery; offer our complete support for the industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
47-1	Randy Jahier	CT	4/25/2018	Aquarium fish populations are stable or growing, and the fishery is not adversely affecting these or other fish populations in Hawaii; fishery is well managed by the State.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
47-2	Randy Jahier	CT	4/25/2018	Amount of data is impressive, and conclusions are well-supported; no indirect or cumulative impacts that were not adequately considered.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
48-1	William Parlee	CT	4/25/2018	Fisheries are sustainable and species are actually increasing in these areas.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
48-2	William Parlee	CT	4/25/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
48-3	William Parlee	CT	4/25/2018	The EA justifies the reopening of the fishery, if the decision is based off of science rather than politics.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
49-1	Arthur Parola	KY	4/25/2018	The conclusions made in the documents are well supported by peer reviewed data; no scientific information omitted that would result in an alternate conclusion.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
49-2	Arthur Parola	KY	4/25/2018	The scientific community holds the Hawaiian aquarium fishery in high regard as one of the best managed near shore fisheries in the world.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
49-3	Arthur Parola	KY	4/25/2018	The management of Hawaii's resources should be based on science, not politics; science shows the sustainable fish populations and supports the re-opening of the aquarium fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
50-1	Alice Hughes	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
50-2	Alice Hughes	HI	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
50-3	Alice Hughes	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, North Kohala, Puna.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
50-4	Alice Hughes	HI	4/22/2018	Kona is the last great place for reef fish to be seen by the general public without going far out to sea or in remote areas.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
50-5	Alice Hughes	HI	4/22/2018	Encourage everyone to use reef safe sunscreen.	Comment noted.
50-6	Alice Hughes	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
51-1	Shayla Middleton	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
51-2	Shayla Middleton	HI	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
51-3	Shayla Middleton	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
51-4	Shayla Middleton	HI	4/22/2018	Seen radical decline in fish populations in the last 15 years I have been snorkeling Maui waters.	Comment noted. Neither FEA covers commercial aquarium fishing on the island of Maui. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
51-5	Shayla Middleton	HI	4/22/2018	Encountered an aquarium collector about 10 years ago with large boat and several dozen buckets full of tropical fish.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
51-6	Shayla Middleton	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
52-1	Donna Burrows	N/A	4/22/2018	Concerned about the following species: Yellow Tangs, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
52-2	Donna Burrows	N/A	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
52-3	Donna Burrows	N/A	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
53-1	Jeanne Jones	HI	4/22/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
53-2	Jeanne Jones	HI	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
53-3	Jeanne Jones	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kohala, South Kohala, Waikiki/Diamond Head.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
53-4	Jeanne Jones	HI	4/22/2018	Reef condition has declined in the past few years, with one reason being the aquarium trade.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
53-5	Jeanne Jones	HI	4/22/2018	Save the reefs and the fish who call them home before it's too late.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
53-6	Jeanne Jones	HI	4/22/2018	Encourage others to boycott fish caught in Hawaii to put the thieves who destroy the reef out of business.	Comment noted.
53-7	Jeanne Jones	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
54-1	Linda Wright	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
54-2	Linda Wright	HI	4/22/2018	Specific concerns about these species: Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
54-3	Linda Wright	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
54-4	Linda Wright	HI	4/22/2018	Reefs of Hawaii are isolated in the Pacific, so once species begin to disappear that will not recover.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
54-5	Linda Wright	HI	4/22/2018	Health of the reefs will then decline exponentially.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
54-6	Linda Wright	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
55-1	Brian Dunleavy	NJ	4/25/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or otherfish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
55-2	Brian Dunleavy	NJ	4/25/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
55-3	Brian Dunleavy	NJ	4/25/2018	Amount of data is impressive, and conclusions are well-supported; no indirect or cumulative impacts that were not adequately considered.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
55-4	Brian Dunleavy	NJ	4/25/2018	The scientific assessments justify the reopening of the Hawaii fishery.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
56-1	Pamela Polland	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
56-2	Pamela Polland	HI	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
56-3	Pamela Polland	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
56-4	Pamela Polland	HI	4/22/2018	The reefs and fish populations have changed and diminished since 1976; remember that extinction is forever; do everything possible to protect Hawaii reefs and fish.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
56-5	Pamela Polland	HI	4/22/2018	Astounded that the DLNR would support EAs that were drafts by the aquarium trade proponents, when the DLNR has written many reports about the devastation the aquarium trade has had on Hawaii reefs.	Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.
56-6	Pamela Polland	HI	4/22/2018	Know many people who no longer come to Hawaii for vacation, but rather go to places with healthy reefs, such as Belize, Fiji, Borabora, and Palau.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
56-7	Pamela Polland	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
57-1	Frank Fiorentino	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Snowflake eels, Moorish Idols, Angelfishes.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
57-2	Frank Fiorentino	HI	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
57-3	Frank Fiorentino	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
57-4	Frank Fiorentino	HI	4/22/2018	Very few reef fish seen when snorkeling/scuba diving on Maui; only place to see them is the Maui Ocean Center.	Comment noted. Commercial aquarium collection on the island of Maui is not covered by either FEA.
57-5	Frank Fiorentino	HI	4/22/2018	Think legal action should be taken against the management of Hawaii Dept. of Land and Natural Resources for allowing our natural resources to be exploited and exported, leaving the ocean naked of reef fish and killing the reefs.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
57-6	Frank Fiorentino	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
58-1	Shakayla Thomas	N/A	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
58-2	Shakayla Thomas	N/A	4/22/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
58-3	Shakayla Thomas	N/A	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O`ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLC, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
58-4	Shakayla Thomas	N/A	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
59-1	Ryan Snodgrass	N/A	4/21/2018	Culture of supporting the underdog; time to ask why they are small in numbers and why science does not support their argument.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
60-1	April C. Lee	HI	4/25/2018	Collection of fish is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
60-2	April C. Lee	HI	4/25/2018	To halt all collection without proof is unfair to businesses and those who do it as a hobby for their own aquariums; how does The Humane Society halt collection without an EA?	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
60-3	April C. Lee	HI	4/25/2018	No collection in Hawaii will only increase the importation of fishes from all over the world, which can end up in Hawaii's waters as invasive animals that can reek havoc and harm the ecosystem.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
61-1	Wayne Sugiyama	HI	4/20/2018	Has held an aquarium permit and commercial fishing license since 1972 - never seen the reefs overfished.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
61-2	Wayne Sugiyama	HI	4/20/2018	Small group of outsiders trying to shut down a viable industry; don't consider the fish for food industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
61-3	Wayne Sugiyama	HI	4/20/2018	EA is well written and documented, should be accepted by DLNR.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
61-4	Wayne Sugiyama	HI	4/20/2018	May have to shut down my business, layoff employees, and sell house because of environmentalists who want local people out of work.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
62-1	Exotic Reef Imports	CA	4/20/2018	Aquarium fishery in Hawaii has always stood out as one of the best regulated, most sustainable, most responsible fisheries that we deal with; always has been, and remains, a paragon of virtue and a model fishery in the international area and should be allowed to continue.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
62-2	Exotic Reef Imports	CA	4/20/2018	Data clearly demonstrates that the fishery is highly sustainable and is not destructive to the local aquatic environments.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
62-3	Exotic Reef Imports	CA	4/20/2018	Hope that whomever is assessing the EA and the data not be swayed by the emotional attack of the opposition.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
63-1	Sylvia Litchfield	HI	4/25/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
63-2	Sylvia Litchfield	HI	4/25/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
63-3	Sylvia Litchfield	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
63-4	Sylvia Litchfield	HI	4/25/2018	Fish eat algae and sea vegetables, and keep a harmonious balance that allows the coral reefs to thrive and survive.	Comment noted. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
63-5	Sylvia Litchfield	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
64-1	Mary Binder	HI	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
64-2	Mary Binder	HI	4/25/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
64-3	Mary Binder	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Hilo, Waikiki/Diamond Head, Maui / Molokai / Lanai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
64-4	Mary Binder	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
65-1	Wendy Harvey	HI	4/25/2018	Concerned about the following species: Yellow Tangs, Cleaner Wrasses.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
65-2	Wendy Harvey	HI	4/25/2018	Specific concerns about these species: Species I once encountered are missing.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
65-3	Wendy Harvey	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
65-4	Wendy Harvey	HI	4/25/2018	Reefs I visit have lost most or a significant number of fish in the last 15 years.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
65-5	Wendy Harvey	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
66-1	Yvette Vernet	N/A	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish, Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
66-2	Yvette Vernet	N/A	4/25/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclud no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
66-3	Yvette Vernet	N/A	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
66-4	Yvette Vernet	N/A	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
67-1	Thalia Davis	HI	4/25/2018	Concerned about the following species: Yellow Tangs, Cleaner Wrasses, All White List Species Taken in West Hawaii, Hermit crabs, Snowflake eels, Flame Wrasses, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
67-2	Thalia Davis	HI	4/25/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclud no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
67-3	Thalia Davis	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Waikiki/Diamond Head, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
67-4	Thalia Davis	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
68-1	Victoria Martocci	HI	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
68-2	Victoria Martocci	HI	4/25/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
68-3	Victoria Martocci	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
68-4	Victoria Martocci	HI	4/25/2018	Hawaii's marine species are vulnerable to so many large threats that it is foolish, short-sighted, and irresponsible to further impact the ecosystem; torturous treatment during collection, transport, and ultimate death by starvation.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
68-5	Victoria Martocci	HI	4/25/2018	Disallowing practice is motivation for the industry to find ways to breed them in captivity.	Comment noted. The FEAs analyze the impacts of commercial aquarium collection. The FEAs conclude no significant impact from commercial aquarium collection.
68-6	Victoria Martocci	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
69-1	Kaimi Kaupiko	HI	4/24/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
69-2	Kaimi Kaupiko	HI	4/24/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
69-3	Kaimi Kaupiko	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
69-4	Kaimi Kaupiko	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
69-5	Kaimi Kaupiko	HI	4/24/2018	The cultural prospective of the Hawaiian people is critical to the health of all places; comments from native people are ignored and feedback is unwanted by the entities that are supposed to sustain Hawaii.	As noted in Sections 4.2 and 5.3 of both the Hawai'i and O'ahu FEAs, Native Hawaiians that participate in the fishery, and those that support and oppose the commercial aquarium fishery, have always been a part of its long history and its management, including participation in the WHFC. The Hunting, Farming and Fishing Association, representing Native Hawaiians and other parties engaged in farming, hunting, and fishing in Hawai'i, commented that the group has consulted extensively with the Applicant during the development of both the Hawai'i and O'ahu EA (Comment 768-1).
69-6	Kaimi Kaupiko	HI	4/24/2018	Fish are depleting; surveys in Miloli'i show fewer each year.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
70-1	Cynthia Van Kleef	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
70-2	Cynthia Van Kleef	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclud no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
70-3	Cynthia Van Kleef	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Shore, Leeward, Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
70-4	Cynthia Van Kleef	HI	4/24/2018	Since the coral bleaching in 2015, seen reduced number of fish, reduced variety of fish and coral species, especially ornamental fish; need to stop aquarium fish trade because without the fish the ocean dies.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The DAR study also concluded that from 2016 to 2017, approximately one year after coral post-bleaching mortality subsided, minimal change in coral cover was documented within areas open to commercial aquarium collection, compared to a slight decline in mean coral cover in areas closed to collection, and this difference was statistically significant (p = 0.038).
70-5	Cynthia Van Kleef	HI	4/24/2018	Should shut down and rotate snorkeling areas so reef and fish systems can recover from tourists.	Comment noted. Impacts from tourism are discussed in Section 5.4.3.4 of both FEAs.
70-6	Cynthia Van Kleef	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
71-1	Abraham Neiss	HI	4/24/2018	Fishery is sustainable, proven by DLNR fish counts and the EA; constitutional right to take pet fish for enjoyment while ensuring sustainability.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
71-2	Abraham Neiss	HI	4/24/2018	Fishermen have and will continue to work with the DLNR to ensure sustainability; collect from small areas of the highly renewable fish populations (produce 10,000 to 20,000 fry per spawning several times a year).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
71-3	Abraham Neiss	HI	4/24/2018	Lack of permits is hurting family and business for no legitimate reasons; moral and legal travesty.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
72-1	Michael Davidson	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
72-2	Michael Davidson	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
72-3	Michael Davidson	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
72-4	Michael Davidson	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
73-1	Andrea Anixt	HI	4/24/2018	Concerned about the following species: All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
73-2	Andrea Anixt	HI	4/24/2018	Specific concerns about these species: Species abundance has been significantly reduced, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
73-3	Andrea Anixt	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kaneohe/Windward, North Shore.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
73-4	Andrea Anixt	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
73-5	Andrea Anixt	HI	4/24/2018	Wrasse, O'ama, tako were once plentiful but are now scarce (examples given).	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
74-1	Laszlo Kurucz	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
74-2	Laszlo Kurucz	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
74-3	Laszlo Kurucz	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
74-4	Laszlo Kurucz	HI	4/24/2018	Fish do not live long in saltwater aquariums.	Comment noted. The FEAs analyze the impact of comemrcial aquarium collection on the environment.
74-5	Laszlo Kurucz	HI	4/24/2018	Need to let fish live free and multiply because fish have declined on reefs in the last decades (scuba diver).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
74-6	Laszlo Kurucz	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
75-1	Rene Young	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, Flame Wrasses, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
75-2	Rene Young	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
75-3	Rene Young	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
75-4	Rene Young	HI	4/24/2018	Reefs are less abundant and in poor condition than 15 years ago	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
75-5	Rene Young	HI	4/24/2018	So many threats to the ocean; now is not the time to take fish for decoration, as it's expected to have no fish by 2048; are overdrawing; if keep taking unnecessarily, there won't be anything left to take for profit; this is a long term solution for a long term problem.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
75-6	Rene Young	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
76-1	William Lansford	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Hermit crabs, Bandit Angelfish, Moorish Idols, HI Turkeyfish.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
76-2	William Lansford	HI	4/24/2018	As a former aquarium fish collector, believe there should be a bag limit on Yellow Tangs (open to over exploitation), butterflyfish (Raccoon, auriga, frembeli, and a few others are fine to take but obligate coralavores should not be allowed until their obligatory diet can be met in the aquarium), bandit angels, and Moorish Idols. Spheh lions are too rare to collect without specific bag limits.	Comment noted. Both FEAs discuss the existing regulations that govern commercial aquarium fish collection, including bag and size limits on Yellow Tang on both islands (see Section 1.2.3 of the FEAs). Both FEAs also include a new Preferred Alternative with additional regulations for certain species.
76-3	William Lansford	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
77-1	Kayle Maikai	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
77-2	Kayle Maikai	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
77-3	Kayle Maikai	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Ewa.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
77-4	Kayle Maikai	HI	4/24/2018	No need to own saltwater fish, unless for education or rehabilitation.	Comment noted. The FEAs analyze the impact of comemrcial aquarium collection on the environment.
77-5	Kayle Maikai	HI	4/24/2018	Seeing species in the wild is much more rewarding than seeing them in display cases; only place to see them since they are being taken from the reef ecosystems.	Comment noted. The FEAs analyze the impact of comemrcial aquarium collection on the environment.
77-6	Kayle Maikai	HI	4/24/2018	Consider, at the least, putting restriction on species, size, age, and seasons for stores and hobbyists who want to own salt water species.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu. The Hawai'i FEA discusses existing regulations, including the White List and existing bag limits, in Section 1.2. The O'ahu FEA discusses existing regulations, including bag and size limits, in Section 1.2.3.
77-7	Kayle Maikai	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
78-1	Kini Burke	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
78-2	Kini Burke	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
78-3	Kini Burke	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai, Hilo, Puna Kona,ka'u, Kohala.. Moloka'i, Oahu.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
78-4	Kini Burke	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
79-1	Jason Nguyen	N/A	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
79-2	Jason Nguyen	N/A	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
79-3	Jason Nguyen	N/A	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
80-1	Dan Harrang	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All White List Species Taken in West Hawaii, Flame Wrasses, Bandit Angelfish, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
80-2	Dan Harrang	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
80-3	Dan Harrang	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
80-4	Dan Harrang	HI	4/24/2018	Keep the moratorium on for-profit gathering of aquarium fish; for each one or two jobs, thousands of species are taken and often arrive dead/injured to their destinations.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
80-5	Dan Harrang	HI	4/24/2018	Significant environmental impact is not worth the minimal positive economic impact; detrement to the animals/reef and tourist dollars are not accounted for.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
80-6	Dan Harrang	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
81-1	Nicole Busto	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
81-2	Nicole Busto	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
81-3	Nicole Busto	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
81-4	Nicole Busto	HI	4/24/2018	There should be no taking any of these fish from reefs in Hawaii; disrupts the entire ecosystem.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
81-5	Nicole Busto	HI	4/24/2018	Have the power to make the best decision for the fish and reefs; don't let greed cloud your good judgement.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
81-6	Nicole Busto	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
82-1	Don McLeish	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Angelfishes, Dragon Eels, HI Turkeyfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
82-2	Don McLeish	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
82-3	Don McLeish	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
82-4	Don McLeish	HI	4/24/2018	Health of the West Maui reefs have worsened in the last 30 years, with reduced diversity of life; any reduction of take would benefit the reefs.	Comment noted. Neither of the FEAs cover the Island of Maui.
82-5	Don McLeish	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
83-1	Brenda Ford	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
83-2	Brenda Ford	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
83-3	Brenda Ford	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
83-4	Brenda Ford	HI	4/24/2018	Captured fish do not live a normal lifespan in aquariums, cannot breed, diminish the fauna of the reef, and interrupt the food chain off the cost of West Hawaii Island.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
83-5	Brenda Ford	HI	4/24/2018	Few families involved in this practice; can operate other businesses with taking the fish.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
83-6	Brenda Ford	HI	4/24/2018	Tourists complain that the reefs are no longer abundant in fish; now to go to Fiji instead.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
83-7	Brenda Ford	HI	4/24/2018	A reef fish collector physically attacked a woman who was videotaping the collection of fish.	Comment noted. The applicant supports full enforcement of all applicable regulations.
83-8	Brenda Ford	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
84-1	Kawaipio Border	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
84-2	Kawaipio Border	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
84-3	Kawaipio Border	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
84-4	Kawaipio Border	HI	4/24/2018	The imbalance of the natural cycle is disrupted when taking of fish of any kind are constantly removed for human purposes.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
84-5	Kawaipio Border	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
85-1	Thomas Carey	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
85-2	Thomas Carey	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
85-3	Thomas Carey	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
85-4	Thomas Carey	HI	4/24/2018	As a diver for forty years, I know it's time to stop collecting marine critters; protection of the ocean and its reefs is paramount.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
85-5	Thomas Carey	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
86-1	Steven Dennis	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
86-2	Steven Dennis	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
86-3	Steven Dennis	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala, Maui / Molokai / Lanai, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
86-4	Steven Dennis	HI	4/24/2018	Experienced dramatic reduction in certain reef fish species over nearly 40 years of diving; most reef fish are territorial.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
86-5	Steven Dennis	HI	4/24/2018	Collecting reef fish anywhere in the world makes no sense; vast majority die in transit or within a year in an aquarium; more reef fish are now being bred in captivity.	Comment noted. Because mortality post-collection is not anticipated to change from current conditions, it is not anticipated that this factor will alter the estimated collection numbers.
86-6	Steven Dennis	HI	4/24/2018	Health of the reef system depends on full biodiversity; please protect one of the great natural resources of the State.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
86-7	Steven Dennis	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
87-1	Sandy Train	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
87-2	Sandy Train	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
87-3	Sandy Train	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
87-4	Sandy Train	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
88-1	Larry O'Brien	HI	4/24/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
88-2	Larry O'Brien	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
88-3	Larry O'Brien	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
88-4	Larry O'Brien	HI	4/24/2018	Reefs from Kua in the North to Kona Paradise in the South have suffered from a loss of diversity, overall population, and increased algae growth (examples given).	As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
88-5	Larry O'Brien	HI	4/24/2018	Nonsense for an EA to dismiss the effects of population disruption on the entire coral system (see "Phase Shifts, Herbivory, and the Resilience of Coral Reefs to Climate Change" (Hughes, 2007. https://doi.org/10.1016/j.cub.2006.12.049)).	Comment noted. The paper cited in the comment concludes that removal of adult herbivorous fish can lead to adverse impact to coral reefs. As noted, throughout both the Hawai'i and O'ahu EAs the commercial aquarium fishery targets smaller, juvenile fish leaving behind the adult broodstock, which as noted in the paper cited in the comment serve as the primary herbivores. In addition, given the conclusions in the FEAs that commercial aquarium collection is not significantly impacting the populations of any of the White List Species on the island of Hawai'i or the top 20 collected species in O'ahu, the species are anticipated to continue to serve their functions in the ecosystem. In addition, as noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
88-6	Larry O'Brien	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
89-1	Colly Norman	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgefishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
89-2	Colly Norman	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
89-3	Colly Norman	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
89-4	Colly Norman	HI	4/24/2018	Fish belong on the reef to enrich everyone not a few who sell them to wealthy aquarium owners.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
89-5	Colly Norman	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
90-1	Charles "Chuck" Wall, Jr.	TX	4/24/2018	Fishery is sustainable, proven by DLNR fish counts and the EA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
90-2	Charles "Chuck" Wall, Jr.	TX	4/24/2018	Fishermen have and will continue to work with the DLNR to ensure sustainability; collect from small areas of the highly renewable fish populations (produce 10,000 to 20,000 fry per spawning several times a year).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
90-3	Charles "Chuck" Wall, Jr.	TX	4/24/2018	Lack of permits is hurting family and business for no legitimate reasons; moral and legal travesty.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
91-1	Aquatic Inspirations	N/A	4/24/2018	EA has shown that the fisheries is sustainable; important to the collectors and for the environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
91-2	Aquatic Inspirations	N/A	4/24/2018	Aquarium industry is paramount to keeping the natural fisheries protected; economic importance of each fish species will drive the forces to protect them.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
92-1	Richard Terrell	N/A	4/24/2018	Urge you to tune out the irrational and radical pleas to shut down the fishery; EA shows sustainability and the fishery serves as shining example of ethical fishery compared to those in other parts of the Pacific.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
92-2	Richard Terrell	N/A	4/24/2018	Provides income for local fishers and is important to many home hobbyists around the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
92-3	Richard Terrell	N/A	4/24/2018	Survival rate is very high, especially compared to those collected from other parts of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
92-4	Richard Terrell	N/A	4/24/2018	A managed fishery provides incentive to all stakeholders to act as stewards of the resource and to protect it.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
93-1	Cara Lueders	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Snowflake eels, Frogfishes, Flame Wrasses, Moorish Idols, Shrimps, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
93-2	Cara Lueders	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
93-3	Cara Lueders	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
93-4	Cara Lueders	HI	4/24/2018	As a kayak guide, see the dying reef and less abundance of fish.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
93-5	Cara Lueders	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
94-1	Janice Keanaaina	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
94-2	Janice Keanaaina	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
94-3	Janice Keanaaina	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
94-4	Janice Keanaaina	HI	4/24/2018	Health of reef and fish populations from North Kona thru Ka'u has deteriorated	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
94-5	Janice Keanaaina	HI	4/24/2018	Reefs need protected from anyone gathering more than would be used to feed their family until the reef is restored.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). In addition, both FEAs discuss the existing regulations that govern commercial aquarium fish collection. Both FEAs also include a new Preferred Alternative with additional regulations.
94-6	Janice Keanaaina	HI	4/24/2018	Does not respect the ways of our ancestors of sustainable living; steals our future.	Comment noted. Impacts to cultural resources are discussed in Section 5.3 of both FEAs.
94-7	Janice Keanaaina	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
95-1	Laurel Whillock	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
95-2	Laurel Whillock	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Specie l once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
95-3	Laurel Whillock	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
95-4	Laurel Whillock	HI	4/24/2018	Number and variety of reef fish have diminished (examples included), rarely comment on quality of diving here.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
95-5	Laurel Whillock	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
96-1	Tropical Fish Emporium	HI	4/24/2018	Findings coincide with the data available for years showing a sustainable fishery in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
96-2	Tropical Fish Emporium	HI	4/24/2018	More than happy to answer any other questions and provide insight if needed; lookforward to getting back to work.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
97-1	Robert Schmidt	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
97-2	Robert Schmidt	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
97-3	Robert Schmidt	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
97-4	Robert Schmidt	HI	4/24/2018	Seen decrease in reef health and sea life in the last ten years; favor the stopping of aquarium fishery in HI and around the world.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
97-5	Robert Schmidt	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
98-1	Melanie Lewis	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
98-2	Melanie Lewis	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
98-3	Melanie Lewis	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
98-4	Melanie Lewis	HI	4/24/2018	In past ten years, have seen decrease in fish near Milolii where the daily harvest is; must be some controls and regulations put in place.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
98-5	Melanie Lewis	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
99-1	Nichole Zirzow	HI	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Dragon Eels, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
99-2	Nichole Zirzow	HI	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
99-3	Nichole Zirzow	HI	4/24/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Hawaii Kai, Lanikai/Kailua, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
99-4	Nichole Zirzow	HI	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
100-1	Donya Drummond	N/A	4/24/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
100-2	Donya Drummond	N/A	4/24/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
100-3	Donya Drummond	N/A	4/24/2018	While fish species are being depleted, this no doubt affects the ocean (acidification), which can put more species at risk that are not utilized by the aquarium industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts, including climate change (and ocean acidification), are discussed in Section 5.4.3 of the FEAs.
100-4	Donya Drummond	N/A	4/24/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
101-1	Kelly Ann Williams	N/A	4/23/2018	Concerned about the following species: All White List Species Taken in West Hawaii, All Top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
101-2	Kelly Ann Williams	N/A	4/23/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
101-3	Kelly Ann Williams	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala North Kohala, Puna, Hilo, Hamakua,, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
101-4	Kelly Ann Williams	N/A	4/23/2018	Protect this jewel of diversity; feel like the numbers are down by 75% or more.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.The FEAs conclude no significant impact from commercial aquarium collection. The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
101-5	Kelly Ann Williams	N/A	4/23/2018	Should breed them in captivity.	Comment noted.The FEAs analyze the impacts of commercial aquarium collection. The FEAs conclude no significant impact from commercial aquarium collection.
101-6	Kelly Ann Williams	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
102-1	Larry Stevens	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
102-2	Larry Stevens	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
102-3	Larry Stevens	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Ka'u, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
102-4	Larry Stevens	HI	4/23/2018	Fish abundance has decreased steadily over many years across Maui's leeward reefs.	Comment noted. Commercial aquarium collection on the Island of Maui is not covered by either FEA.
102-5	Larry Stevens	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
103-1	Sandy Shimmon	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Snowflake eels, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
103-2	Sandy Shimmon	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
103-3	Sandy Shimmon	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kaneohe/Windward, Lanikai/Kailua.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
103-4	Sandy Shimmon	HI	4/23/2018	Lanikai dreadfully missing fish and reefs need these fish to keep healthy.	Comment noted.
103-5	Sandy Shimmon	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
104-1	Elizabeth McDermott	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
104-2	Elizabeth McDermott	HI	4/23/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished, Species I once encountered are mising, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species. DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
104-3	Elizabeth McDermott	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
104-4	Elizabeth McDermott	HI	4/23/2018	Have seen catastrophic changes to our reefs and marine life in just a few decades (examples given).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
104-5	Elizabeth McDermott	HI	4/23/2018	Reefs suffering because of climate change, polluted runoff, choking gyres of debris, etc.; need to assess health of reef fish stocks in light of these new challenges.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing and climate change, are discussed in Section 5.4.3 of both FEAs.
104-6	Elizabeth McDermott	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
105-1	Sarahlynn Bower	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
105-2	Sarahlynn Bower	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
105-3	Sarahlynn Bower	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
106-1	Bob Williams	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
106-2	Bob Williams	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclud no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
106-3	Bob Williams	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
106-4	Bob Williams	HI	4/23/2018	Bleaching of the coral has been significantly increased in the last 10 years.	The cumulative impacts of global warming and coral bleaching are discussed in Section 5.4.3 of both FEAs.
106-5	Bob Williams	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
107-1	Shannon Shea	HI	4/23/2018	Concerned about the following species: Cleaner Wrasses, All White List Species Taken in West Hawaii, Flame Wrasses, Bandit Angelfish, Shrimps, Dragon Eels.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
107-2	Shannon Shea	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclud no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
107-3	Shannon Shea	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
107-4	Shannon Shea	HI	4/23/2018	As a regular diver, notice difference in fish abundance between dive sites in areas where collection is permitted and where it is not; comments from tours.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
107-5	Shannon Shea	HI	4/23/2018	Reefs already under stress from climate change, population growth/run-off, and other man-made threats; have the power to eliminate this threat and protect our waters like we do our plants, culture, and lands.	Comment noted. The cumulative impacts of global warming and coral bleaching are discussed in Section 5.4.3 of both FEAs.
107-6	Shannon Shea	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
108-1	Hawaii Pacific Brokers	HI	4/23/2018	Reef fish are collected in sustainable numbers; would be fool hardy to do otherwise.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
108-2	Hawaii Pacific Brokers	HI	4/23/2018	Fishermen at forefront of ecological observations; permit these hard working and tax paying individuals to continue to help inspire care and thoughtfulness regarding our oceans in others.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
109-1	Jean Love	HI	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
109-2	Jean Love	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
109-3	Jean Love	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
109-4	Jean Love	HI	4/23/2018	Fish are becoming less every year, for past eighteen years.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
109-5	Jean Love	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
110-1	Floyd Rhoades	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
110-2	Floyd Rhoades	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
110-3	Floyd Rhoades	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
110-4	Floyd Rhoades	HI	4/23/2018	At least 10 times as many fish in 1970; tragedy what has been done.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
110-5	Floyd Rhoades	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
111-1	Nedi McKnight	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
111-2	Nedi McKnight	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
111-3	Nedi McKnight	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Leeward, Ewa, North Kona, South Kona, Hamakua, South Kohala.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
111-4	Nedi McKnight	HI	4/23/2018	Shorelines appear almost dead, shocking contrast to 20 years ago.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
111-5	Nedi McKnight	HI	4/23/2018	Fiji and New Zealand still have intact ecosystems; must get act together if to continue to rely on tourism in HI.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
111-6	Nedi McKnight	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
112-1	Kari Kolton-Zajackowski	TX	4/26/2018	EA shows the topical fish industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
112-2	Kari Kolton-Zajackowski	TX	4/26/2018	Naïve to blame one industry for the challenges facing fish populations around the HI islands (examples given); management needs to be appraised holistically.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
113-1	Dr. John Paul Wright	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Moorish Idols, Angelfishes.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
113-2	Dr. John Paul Wright	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
113-3	Dr. John Paul Wright	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kaneohe/Windward, Maui/Molokai/Lanai, North Kona, South Kona, Ka'u, South Kohala.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
113-4	Dr. John Paul Wright	HI	4/23/2018	Personally observed vastly decreased numbers of reef fish (examples given).	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
113-5	Dr. John Paul Wright	HI	4/23/2018	Fish belong in the ocean, not a personal collection; fish are the heritage of all of us, not just a greedy careless few; Compare to starting aviaries and collecting native birds.	Comment noted. The FEAs analyze the impact of comemrcial aquarium collection on the environment.
114-1	Caroline Azelski	HI	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
114-2	Caroline Azelski	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
114-3	Caroline Azelski	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
114-4	Caroline Azelski	HI	4/23/2018	Hawaii does not have a multitude of fish, as would be expected.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
114-5	Caroline Azelski	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
115-1	Benjy Garfinkle	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
115-2	Benjy Garfinkle	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
115-3	Benjy Garfinkle	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, Hamakua, South Kohala, Waikiki/Diamond Head, Kaneohe/Windward, North Shore, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCN, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
115-4	Benjy Garfinkle	HI	4/23/2018	Current condition of fish stock and reef condition is in serious trouble and needs strong, quick, sustained action for the future.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
115-5	Benjy Garfinkle	HI	4/23/2018	Fish and reef in FL have recovered since enforcement of stronger rules.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu. The Hawai'i FEA discusses existing regulations, including the White List and existing bag limits, in Section 1.2. The O'ahu FEA discusses existing regulations, including bag and size limits, in Section 1.2.3.
115-6	Benjy Garfinkle	HI	4/23/2018	Large death rates of the aquarium industry.	Comment noted. The FEAs analyze the impact of comemrcial aquarium collection on the environment.
116-1	Carrie Sparks	N/A	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
116-2	Carrie Sparks	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
116-3	Carrie Sparks	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
116-4	Carrie Sparks	N/A	4/23/2018	See less healthy reefs, receding beach, and fewer fish; must preserve for future generations.	<p>Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.</p> <p>As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
116-5	Carrie Sparks	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
117-1	Grant Heidrich	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
117-2	Grant Heidrich	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
117-3	Grant Heidrich	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai, South Kona, North Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
117-4	Grant Heidrich	HI	4/23/2018	The ongoing collection of ornamental fish from near shore fisheries (reefs) is destroying the ecosystem, and the natural ecology of the ocean.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
117-5	Grant Heidrich	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
118-1	Glenn Fukuda	HI	N/A	Many species are not actually rare, juat at much deeper depths (90% of all marine species in the twilight zone)	Comment noted. Additional information for some deep water species has been added to the FEAs .
118-2	Glenn Fukuda	HI	N/A	Nature is very resilient; any study would confirm the industry's data.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
118-3	Glenn Fukuda	HI	N/A	Industry depends on adaptation of species, excess fish used and reproducing ones left alone.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
118-4	Glenn Fukuda	HI	N/A	Stop common sense fixes for such a complex environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
119-1	David Balfour	HI	4/23/2018	Concerned about the following species: Yellow Tangs, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Bandit Angelfish, Moorish Idols, Angelfishes.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
119-2	David Balfour	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
119-3	David Balfour	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Maui/Molokai/Lanai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
119-4	David Balfour	HI	4/23/2018	Do not allow our reefs to be impacted by greedy harvesters of our precious island resources.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
119-5	David Balfour	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
120-1	Phyllus Robinson	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
120-2	Phyllus Robinson	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
120-3	Phyllus Robinson	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
120-4	Phyllus Robinson	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
121-1	Hallie Larsson	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
121-2	Hallie Larsson	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
121-3	Hallie Larsson	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
121-4	Hallie Larsson	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
122-1	Erik M. Stein	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
122-2	Erik M. Stein	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
122-3	Erik M. Stein	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, Maui/Molokai/ Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
122-4	Erik M. Stein	HI	4/23/2018	Reefs are poorer and EA is inadequate; need more than a couple of years of study.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Many of the studies cited in the FEAs include 18 years of data.
122-5	Erik M. Stein	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
123-1	Marco Marin	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
123-2	Marco Marin	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
123-3	Marco Marin	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
124-1	Mary Johnson	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
124-2	Mary Johnson	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclud no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
124-3	Mary Johnson	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka'u, North Kohala, Hilo, Hamakua, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
124-4	Mary Johnson	N/A	4/23/2018	I am very concerned with the diminishing coral reefs and the decline in many different sea life in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
124-5	Mary Johnson	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
125-1	Marjorie Chase	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All White List Species Taken in West Hawaii, Snowflake eels, HI Turkeyfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
125-2	Marjorie Chase	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclud no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
125-3	Marjorie Chase	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
125-4	Marjorie Chase	HI	4/23/2018	Dramatic decline in diversity of fish and impact on reef since 1984.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
125-5	Marjorie Chase	HI	4/23/2018	Consider source of EA study and look at all the scientific studies when making decision.	Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
125-6	Marjorie Chase	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
126-1	Linda Sparks	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
126-2	Linda Sparks	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
126-3	Linda Sparks	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
126-4	Linda Sparks	HI	4/23/2018	As an underwater photographer, have seen huge decrease in number and variety of fish on reefs; stop massive depletion of marine species due to collecting.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
126-5	Linda Sparks	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
127-1	Margaret Haraa Mori	CA	4/23/2018	Having a tropical aquarium provides opportunities to learn about the ocean and why various activities are harmful to them (examples given).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
127-2	Margaret Haraa Mori	CA	4/23/2018	Tropical fishing industry is sustainable; biggest impacts to reefs are refuse, pesticides, toxic run-off, and plastics.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
128-1	Leslie Hutchinson	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
128-2	Leslie Hutchinson	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
128-3	Leslie Hutchinson	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
128-4	Leslie Hutchinson	HI	4/23/2018	Seems unconscionable that we must argue to convince the DLNR not to allow the depletion of the reefs' inhabitants.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
128-5	Leslie Hutchinson	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
129-1	Maren Anka	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Angelfishes, Dragon Eels, HI Turkeyfish.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
129-2	Maren Anka	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
129-3	Maren Anka	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
129-4	Maren Anka	HI	4/23/2018	As a dive guide for 15 years, have seen fish populations drop and algae growth increase; don't destroy the delicate balance of nature.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
129-5	Maren Anka	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
130-1	Mary Sherman	N/A	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
130-2	Mary Sherman	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
130-3	Mary Sherman	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka`u, North Kohala, Puna, Hamakua, Waikiki/Diamond Head, Lanikai/Kailua, North Shore, Maui / Molokai / Lanai, Kauai.	Comment noted. The O`ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
130-4	Mary Sherman	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
131-1	Tina Wildberger	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O`ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O`ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
131-2	Tina Wildberger	HI	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O`ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O`ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O`ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
131-3	Tina Wildberger	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
131-4	Tina Wildberger	HI	4/22/2018	With so many factors that are difficult to control, it is imparative that we preserve and protect our resources where we can.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources are included in Section 5.4.3.
131-5	Tina Wildberger	HI	4/22/2018	Kill rate is too high; act within your abilities to stop this practice that is selfish and predatory.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.The FEAs conclude no significant impact from commercial aquarium collection. The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O`ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O`ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
131-6	Tina Wildberger	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
132-1	Louise Priest	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O`ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O`ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
132-2	Louise Priest	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
132-3	Louise Priest	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kaneohe/Windward, Lanikai/Kailua.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
132-4	Louise Priest	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
133-1	Evelyn J. Lennon	N/A	4/23/2018	Depletion of fish in the bay would be a travesty; needed to balance ecosystem.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
133-2	Evelyn J. Lennon	N/A	4/23/2018	Expect to see the permits terminated, to protect the HI people and their beauty.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
134-1	Tammy Sterrett	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
134-2	Tammy Sterrett	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Economic benefits are curtailed by reduced health & beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
134-3	Tammy Sterrett	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
134-4	Tammy Sterrett	HI	4/23/2018	Economic value of visitors snorkeling far outnumbers the aquarium trade; time regulate/eliminate.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
134-5	Tammy Sterrett	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
135-1	Susy Ruddle	HI	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
135-2	Susy Ruddle	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
135-3	Susy Ruddle	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka'u, South Kohala, Lanikai/Kailua.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
135-4	Susy Ruddle	HI	4/23/2018	Have noticed disappearance of many fish on the Kohala Coast and seen fish collectors delivering cargo to the airport; is said by cargo staff that one-third of the fish will die in transport.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
135-5	Susy Ruddle	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
136-1	Suzanna Shriner	HI	4/23/2018	Concerned about the following species: Yellow Tangs, All White List Species Taken in West Hawaii, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
136-2	Suzanna Shriner	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
136-3	Suzanna Shriner	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
136-4	Suzanna Shriner	HI	4/23/2018	Over three decades, have watched Yellow Tang disappear; lie that fisheries industry has had "little or no impact"	Comment noted. Yellow Tang are already regulated on both islands with bag limits and size limits. In addition, Section 5.4.1.2.1 of the Hawaii FEA includes information from the DAR illustrating increasing populations of Yellow Tang in West Hawaii within all areas, including open areas (see Table 10 and Figure 5). Both FEAs conclude no significant impact on Yellow Tang from commercial aquarium collection.
136-5	Suzanna Shriner	HI	4/23/2018	Aquarium fisheries industry benefits only a few people but negatively impacts all of us.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
136-6	Suzanna Shriner	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
137-1	Doreen Virtue	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All Top 20 species taken on Oahu, Moorish Idols, Angelfishes.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
137-2	Doreen Virtue	HI	4/22/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
137-3	Doreen Virtue	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, North Kona, South Kohala, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
137-4	Doreen Virtue	HI	4/22/2018	As scuba dive master, seen drop in tropical fish along Kona Coast in the last ten years	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
137-5	Doreen Virtue	HI	4/22/2018	Tourists say HI oceans are boring compared to Mexico and the Caribbean; aquarium trade has resulted in drop of tourism for snorkel and scuba industry.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
137-6	Doreen Virtue	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
138-1	Deborah Wallace	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
138-2	Deborah Wallace	HI	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
138-3	Deborah Wallace	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, North Shore, North Kona, South Kona.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
138-4	Deborah Wallace	HI	4/22/2018	With climate change already damaging the reefs, lack of abundance and diversity of fish will further damage them; have seen far fewer fish over last decade at Hanauma Bay.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts, including climate change, are discussed in Section 5.4.3 of the FEAs.
138-5	Deborah Wallace	HI	4/22/2018	Lose quality of reefs, affecting locals and tourists, for the benefit of a few aquarists.	<p>Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p>
138-6	Deborah Wallace	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
139-1	Helen Malnar	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
139-2	Helen Malnar	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
139-3	Helen Malnar	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai, North Kona, South Kona.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
139-4	Helen Malnar	N/A	4/23/2018	Hawaii diving is not like it used to be as far as abundant sea life (examples given).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
139-5	Helen Malnar	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
140-1	Janice Palma-Glennie	HI	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
140-2	Janice Palma-Glennie	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
140-3	Janice Palma-Glennie	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
140-4	Janice Palma-Glennie	HI	4/23/2018	Experience with reef destruction (examples given); decimation compounded by collection of reef fishes.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
140-5	Janice Palma-Glennie	HI	4/23/2018	Other concerns include loss of environmental integrity, disruption and even cessation of subsistence activities and needs, and cultural and economic concerns.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Impacts on subsistence fishing, cultural resources, and socioeconomics are all discussed in Sections 5.2 and 5.3 of the FEAs.
140-6	Janice Palma-Glennie	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
141-1	Hugo Escobar	N/A	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
141-2	Hugo Escobar	N/A	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
141-3	Hugo Escobar	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
142-1	Jeffrey Hill	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Moorish Idols, Angelfishes, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
142-2	Jeffrey Hill	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
142-3	Jeffrey Hill	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Hilo, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
142-4	Jeffrey Hill	HI	4/23/2018	Watched diminishing number and numbers of species in last thirty years on reefs of the west coast of Hawaii; more than one factor causing this but aquarium trade further threatens a limited resource.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
142-5	Jeffrey Hill	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
143-1	Richard Marks	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
143-2	Richard Marks	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
143-3	Richard Marks	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai, Lanai, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
143-4	Richard Marks	HI	4/23/2018	Drastic reduction in fish and sea creatures in last 17 years.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. In the WHRFMA, only butterflyfish species on the White List can be collected. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
143-5	Richard Marks	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
144-1	David Meyer	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
144-2	David Meyer	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
144-3	David Meyer	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala, Hawaii Kai, Lanikai/Kailua, North Shore.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
144-4	David Meyer	N/A	4/23/2018	Starting to see Yellow Tang rebound - startled by any action that might threaten their recovery.	Comment noted. Section 5.4.1.2.1 of the Hawaii FEA includes information from the DAR illustrating increasing populations of Yellow Tang in West Hawaii within all areas, including open areas (see Table 10 and Figure 5). Both FEAs conclude no significant impact on Yellow Tang.
144-5	David Meyer	N/A	4/23/2018	Will see drop in attendance and loss of tourist dollars once the word gets out that there are better fish elsewhere.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
144-6	David Meyer	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
145-1	Lynn Beittel	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
145-2	Lynn Beittel	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
145-3	Lynn Beittel	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala, North Kohala, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
145-4	Lynn Beittel	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
146-1	Meredith Miller	HI	4/23/2018	Concerned about the following species: All White List Species Taken in West Hawaii, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
146-2	Meredith Miller	HI	4/23/2018	Specific concerns about these species: Species I once encountered are missing, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
146-3	Meredith Miller	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
146-4	Meredith Miller	HI	4/23/2018	Disappearance of certain species (examples given); see fish collectors and spearfishermen.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. Cumulative impacts associated with other sources, including other fishers, is included in Section 5.4.3 of both FEAs.
146-5	Meredith Miller	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
147-1	Garry Russell	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
147-2	Garry Russell	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
147-3	Garry Russell	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Ka'u.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
147-4	Garry Russell	HI	4/23/2018	Damage to the reef by the use of nets and fish taken by collectors in last 16 years.	<p>Comment noted. Section 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA note that two studies have concluded that the aquarium fishery and aquarium fish collection practices have no significant impact on coral or the reef ecosystem. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)</p>
147-5	Garry Russell	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
148-1	Dolores Burke	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
148-2	Dolores Burke	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
148-3	Dolores Burke	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Kaneohe/Windward, Leeward, Maui / Molokai / Lanai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCDD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
148-4	Dolores Burke	HI	4/23/2018	99% of reef fish die within a week or two.	Comment noted. The FEAs analyze the impact of comemrcial aquarium collection on the environment.
148-5	Dolores Burke	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
149-1	Paula Hanson	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
149-2	Paula Hanson	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
149-3	Paula Hanson	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
150-1	Ping Collis	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
150-2	Ping Collis	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
150-3	Ping Collis	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Ka`u, North Kohala, Hilo, Hamakua, Waikiki/Diamond Head, Kaneohe/Windward, Lanikai/Kailua, North Shore, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLC, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
150-4	Ping Collis	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
151-1	Robert Detrick	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
151-2	Robert Detrick	HI	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
151-3	Robert Detrick	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
151-4	Robert Detrick	HI	4/22/2018	Not good people; have observed poaching through suction devices (examples of areas given).	Comment noted. As stated in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors. The applicant supports full enforcement of all applicable regulations.
151-5	Robert Detrick	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
152-1	Warren Blum	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
152-2	Warren Blum	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
152-3	Warren Blum	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai, North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
152-4	Warren Blum	HI	4/23/2018	As dive master over 17 years, seen decline in fish populations.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
152-5	Warren Blum	HI	4/23/2018	Shortened lifespans in aquariums (Yellow Tang example given).	Comment noted. The FEAs analyze the impact of comemrcial aquarium collection on the environment.
152-6	Warren Blum	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
153-1	Don Mc	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
153-2	Don Mc	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
153-3	Don Mc	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
153-4	Don Mc	HI	4/23/2018	Papa Bay Area effected big time.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
153-5	Don Mc	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
154-1	David Fry	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, Leaf Scorpionfish, Frogfishes, Flame Wrasses, Bandit Angelfish, Angelfishes, Dragon Eels, HI Turkeyfish.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
154-2	David Fry	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
154-3	David Fry	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai, North Kona, South Kona, North Kohala, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
154-4	David Fry	N/A	4/23/2018	Over last 20 years, seen drop in abundance of certain reef fish in Maui and off the western shores of the Big Island; more fish in places that collectors do not go (examples given).	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
154-5	David Fry	N/A	4/23/2018	Reefs are an asset that needs protected, including financial asset (examples given).	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
154-6	David Fry	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
155-1	Amber Train	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
155-2	Amber Train	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
155-3	Amber Train	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Puna, Hilo.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
155-4	Amber Train	N/A	4/23/2018	Marine populations are being altered by pollution, aquarium trade, fishing practices, and global ocean changes; coral is important to many species.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Cumulative impacts from other sources, including other fishing and global warming, is described in Section 5.4.3 of both FEAs.
155-5	Amber Train	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
156-1	Judith Soltz	HI	4/23/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
156-2	Judith Soltz	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
156-3	Judith Soltz	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Hamakua, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
156-4	Judith Soltz	HI	4/23/2018	Critical to protect the reefs and save the fish we still have.	Comment noted.
156-5	Judith Soltz	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
157-1	Bonnie McMullen	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
157-2	Bonnie McMullen	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
157-3	Bonnie McMullen	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
157-4	Bonnie McMullen	HI	4/23/2018	See diminished specie count from year to year (examples given); stopped snorkeling because there's nothing to see; resources have been neglected.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
157-5	Bonnie McMullen	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
158-1	Y Alarab	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
158-2	Y Alarab	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
158-3	Y Alarab	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
158-4	Y Alarab	HI	4/23/2018	Fish populations appear decimated.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
158-5	Y Alarab	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
159-1	Jeannette Heidrich	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
159-2	Jeannette Heidrich	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
159-3	Jeannette Heidrich	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
159-4	Jeannette Heidrich	HI	4/23/2018	Reduction in reef health and beauty for tourists.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
159-5	Jeannette Heidrich	HI	4/23/2018	Take the time to adequately assess the impacts; takes more than several months to develop system to do so (should also be done for game fish).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Many of the studies cited in the FEAs include 18 years of data.
159-6	Jeannette Heidrich	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
160-1	Scott Parrish	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Frogfishes, Bandit Angelfish, Moorish Idols, Angelfishes, HI Turkeyfish.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
160-2	Scott Parrish	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
160-3	Scott Parrish	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
160-4	Scott Parrish	HI	4/23/2018	Affects on tourism, primary economic drive.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
160-5	Scott Parrish	HI	4/23/2018	Stunned in how few fish are left, must go to reserves to see them.	Comment noted. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
160-6	Scott Parrish	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
161-1	Matt Jisa	HI	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
161-2	Matt Jisa	HI	4/23/2018	Specific concerns about these species: Species abundance has been significantly reduced.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
161-3	Matt Jisa	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikkiki/Diamond Head.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists). In addition, the FEA concludes that the Preferred Alternative will not have a significant impact.
161-4	Matt Jisa	HI	4/23/2018	Aquarium trade is cruel, imprisons sea creatures.	Comment noted.
161-5	Matt Jisa	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
162-1	Lon Wallace	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All White List Species Taken in West Hawaii, Snowflake eels, Moorish Idols, Angelfishes.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
162-2	Lon Wallace	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
162-3	Lon Wallace	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kohala, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
162-4	Lon Wallace	HI	4/23/2018	Need to have extremely tough laws and regulations to prevent the declines we were witnessing (starting to see populations increase again).	Comment noted. The Hawai'i FEA discusses existing regulations, including the White List and existing bag limits, in Section 1.2. The O'ahu FEA discusses existing regulations, including bag and size limits, in Section 1.2.3. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA. An additional alternative was added in the O'AhU FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu.
162-5	Lon Wallace	HI	4/23/2018	Water and reefs to be preserved for future generations and current locals/tourists; capital gain should not override this sensibility.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
162-6	Lon Wallace	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
163-1	Matt Binder	HI	4/23/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
163-2	Matt Binder	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
163-3	Matt Binder	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
163-4	Matt Binder	HI	4/23/2018	Mockery of environmental laws by saying "no environmental impact" from taking tens of thousands of fish; akin to saying "no impact" if to "remove" 10,000 people from Hawaii given that the population would be "sustainable".	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
163-5	Matt Binder	HI	4/23/2018	No nationale given there is the alternative in breeding aquarium fish.	Comment noted.The FEAs analyze the impacts of commercial aquarium collection. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
163-6	Matt Binder	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
164-1	Patricia Cadiz	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
164-2	Patricia Cadiz	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
164-3	Patricia Cadiz	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
164-4	Patricia Cadiz	HI	4/23/2018	Concerned loss of reef fish contributes to degradation of the reefs (which protect shorelines from sea level rise).	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)
164-5	Patricia Cadiz	HI	4/23/2018	Short-sighted to protect the devastating aquarium trade business for the sacrifice of the greater good.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
164-6	Patricia Cadiz	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
165-1	Aimee Lemieux	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
165-2	Aimee Lemieux	HI	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
165-3	Aimee Lemieux	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
165-4	Aimee Lemieux	HI	4/22/2018	Huge decrease in number of fish and sea life in the last 19 years south and west of Maui.	Comment noted. Commercial aquarium collection on the Island of Maui is not covered by either FEA.
165-5	Aimee Lemieux	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
166-1	Mike Moran	HI	4/23/2018	Concerned about the following species: Yellow Tangs, All White List Species Taken in West Hawaii, Flame Wrasses, Moorish Idols.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
166-2	Mike Moran	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
166-3	Mike Moran	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai, North Kona, South Kona, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
166-4	Mike Moran	HI	4/23/2018	Reduction of reef fish continues in Maui county; numerous reasons; need to stop allowing resources to be taken for someone else's gain.	Comment noted. Neither FEA covers commercial aquarium fishing on the island of Maui. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
166-5	Mike Moran	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
167-1	Teresa Hill	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
167-2	Teresa Hill	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
167-3	Teresa Hill	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
167-4	Teresa Hill	HI	4/23/2018	Fish populations and reefs have changed and diminished since 1995.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
167-5	Teresa Hill	HI	4/23/2018	DLNR now supports EAs drafted by trade proponents; previously had published many reports about the devastation caused by the aquarium trade.	Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
167-6	Teresa Hill	HI	4/23/2018	People now choosing to vacation elsewhere.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
167-7	Teresa Hill	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
168-1	Dan Erdahl	N/A	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
168-2	Dan Erdahl	N/A	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
168-3	Dan Erdahl	N/A	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
168-4	Dan Erdahl	N/A	4/22/2018	Oceans under constant attack; fish for aquariums should be 100% farm raised.	Comment noted. The FEAs analyze the impacts of commercial aquarium collection. The FEAs conclude no significant impact from commercial aquarium collection.
168-5	Dan Erdahl	N/A	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
169-1	Don Schwartz	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
169-2	Don Schwartz	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
169-3	Don Schwartz	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
170-1	Jeffrey Zankel	N/A	4/22/2018	Concerned about the following species: All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
170-2	Jeffrey Zankel	N/A	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
170-3	Jeffrey Zankel	N/A	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Ka'u, North Kohala, Hilo, Hamakua, Waikiki/Diamond Head, Lanikai/Kailua, North Shore, Leeward, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
170-4	Jeffrey Zankel	N/A	4/22/2018	Divers now prefer to go other places due to the severely depleted marine species; ensure the future of diving in HI by placing strict regulation and enforcement.	<p>Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p> <p>As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). As concluded in both FEAs, this level of impact is anticipated to be imperceptible to casual observers.</p> <p>In addition, the O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).</p>
170-5	Jeffrey Zankel	N/A	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
171-1	Teresa Drummond	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Frogfishes, Bandit Angelfish, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
171-2	Teresa Drummond	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
171-3	Teresa Drummond	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
171-4	Teresa Drummond	N/A	4/23/2018	Reefs being impacted negatively during March 2018 visit, will have ripple effect to other environmental areas of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
171-5	Teresa Drummond	N/A	4/23/2018	Entire economic system will continue to be affected at the islands	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
171-6	Teresa Drummond	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
172-1	Cyndy Urry	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
172-2	Cyndy Urry	HI	4/23/2018	Specific concerns about these species: Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
172-3	Cyndy Urry	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
172-4	Cyndy Urry	HI	4/23/2018	I have seen a real reduction in our coral within the past 10 years due to higher temperatures and bleaching and fish reduction . The algae is starting to take over the dead or injured coral and our fish that usually keep this in check are working ,but if we reduce the numbers of these fish, Hawaii's reefs will be doomed. I used to see Bandit Angelfish, Leaf Scorpionfish, Flame Wrasses, Snowflake Eels, and Flame Angelfish pretty regularly as I dive once a week. I haven't see any of these (and many more) in a long time and I am afraid my grandchildren will never see these beautiful fish in the wild again. The aquarium trade is very big here in West Hawaii and we have all seen these people unchecked , gathering hundreds of these fish , rushing to the airport, and get them off island so fast it's scary. Even though there is a ban right now, we see people still collecting. Please stop this before it's too late!	<p>Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.</p> <p>As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>The No Action Alternative in both FEAs has been revised to reflect the continuation of aquarium fish collection without the use of fine mesh nets.</p>
172-5	Cyndy Urry	HI	4/23/2018	Have seen people unchecked, gathering hundreds of fish and quickly getting them off the island; people still collecting despite the current ban.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The No Action Alternative has been revised in the FEAs to reflect the continuation of collection without the use of fine mesh nets.
172-6	Cyndy Urry	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
173-1	Dr. Mary Trotto	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
173-2	Dr. Mary Trotto	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
173-3	Dr. Mary Trotto	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
173-4	Dr. Mary Trotto	HI	4/23/2018	Reef and fish populations have changed drastically off the coast of South Maui; many impacts (examples given).	Comment noted. Neither FEA covers commercial aquarium fishing on the island of Maui. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
173-5	Dr. Mary Trotto	HI	4/23/2018	The aquarium industry can not police itself nor hire experts to do the EA.	Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.
173-6	Dr. Mary Trotto	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
174-1	Robert Babson	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
174-2	Robert Babson	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
174-3	Robert Babson	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
174-4	Robert Babson	HI	4/23/2018	Reduction in fish (examples given); should ban the fish trade or at least have bag limits, like all national parks do.	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>The Hawai'i FEA discusses existing regulations, including the White List and existing bag limits, in Section 1.2. The O'ahu FEA discusses existing regulations, including bag and size limits, in Section 1.2.3. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA. An additional alternative was added in the O'Ahuh FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu.</p>
174-5	Robert Babson	HI	4/23/2018	Will decrease tourism as the word spreads	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
174-6	Robert Babson	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
175-1	Diane Shepherd	HI	4/23/2018	Concerned about the following species: Cleaner Wrasses, Leaf Scorpionfish, Snowflake eels, Shrimps.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
175-2	Diane Shepherd	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
175-3	Diane Shepherd	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai, South Kona, North Kona, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
175-4	Diane Shepherd	HI	4/23/2018	Degradation reefs is undeniable and recent El Nino was devastating; recovery and preservation of coral reefs depends on healthy ecosystem.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
175-5	Diane Shepherd	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
176-1	Stan Walerczyk	HI	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
176-2	Stan Walerczyk	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
176-3	Stan Walerczyk	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
176-4	Stan Walerczyk	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
177-1	Don Erway	HI	4/22/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
177-2	Don Erway	HI	4/22/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
177-3	Don Erway	HI	4/22/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
177-4	Don Erway	HI	4/22/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
178-1	Annette Felix	N/A	4/23/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
178-2	Annette Felix	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
178-3	Annette Felix	N/A	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
178-4	Annette Felix	N/A	4/23/2018	Over past 15 years, seen reduction in many species (do fish surveys for REEF.org).	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
178-5	Annette Felix	N/A	4/23/2018	Need stricter regulations for healthy reef ecosystem and for tourism.	<p>Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p>
178-6	Annette Felix	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
179-1	Alexandra Walters	N/A	4/23/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
179-2	Alexandra Walters	N/A	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
179-3	Alexandra Walters	N/A	4/23/2018	Unacceptale that many species and coral are under threat; need to work to restore not destroy.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
179-4	Alexandra Walters	N/A	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
180-1	Diane M. Kastel and family	IL	4/23/2018	The HSUS, and, it's partners, are calling on the DLNR to require the recreational aquarium fish collection industry to conduct a full environmental impact statement, and, thoroughly examine the impacts of these permits, prior to issuing any more!	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
180-2	Diane M. Kastel and family	IL	4/23/2018	Little to no support from Hawaii's residents for this industry (90% think HI should limit collection, 83% believe it should end altogether); HI's resource managers recently estimated that completing stock assessments and catch limits for 40 species would require \$10 million a year for 10-15 years.	Comment noted. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
181-1	David Brooke	N/A	4/26/2018	Collection is already highly regulated and considered to be sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
181-2	David Brooke	N/A	4/26/2018	Support the EAs and believe collectors should be able to continue to use small mesh nets.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
182-1	Derek Clay	N/A	4/23/2018	Believe that the ban is solely financed by snorkel bob and his people to stop the collection with no bearing on the degradation of the ecology or reef system.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
182-2	Derek Clay	N/A	4/23/2018	Biggest tolls from unaware tourists, pesticide runoff, and commercial trolling.	Comment noted. The cumulative impacts of tourism and commercial fishing are discussed in Section 5.4.3 of both FEAs.
183-1	Dobi Dobroslawa	N/A	4/22/2018	Ask for full environmental impact statement prior to issuing any more permits.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
183-2	Dobi Dobroslawa	N/A	4/22/2018	HI's tropical fish are vitally important to the health of the reefs and entire ecosystem.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawaii'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
184-1	kawa4	N/A	4/23/2018	There are some lawful abiding fishermen/aquarians doing the right thing for the environment, oceans, etc.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
185-1	Shawn Verne	HI	4/23/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawaii'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
185-2	Shawn Verne	HI	4/23/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Economic benefits are curtailed by reduced health & beauty of our reefs, The real possibility that future generations may not encounter these species.	Comment noted. The Hawaii'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
185-3	Shawn Verne	HI	4/23/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, North Kona, South Kohala, North Kohala, Ka'u, Hawaii Kai, Lanikai/Kailua, North Shore, Leeward, Ewa	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
185-4	Shawn Verne	HI	4/23/2018	Dramatic decline in tropical fish and coral degradation since 1980s; will end up like Caribbean Islands, which has lost most of its resources.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
185-5	Shawn Verne	HI	4/23/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
186-1	Ambrosio's Aquatics	CO	4/23/2018	Fishery is sustainable per DLNR fish counts and the EA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
186-2	Ambrosio's Aquatics	CO	4/23/2018	Constitutional right to take pet fish while ensuring sustainability.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
186-3	Ambrosio's Aquatics	CO	4/23/2018	Fishermen work with DLNR and care about the environment; only small areas collected from with highly renewable fish populations.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
186-4	Ambrosio's Aquatics	CO	4/23/2018	Lack of small mesh net aquarium permits is hurting my family and business.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
187-1	Karol Rybinski	IL	4/26/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
187-2	Karol Rybinski	IL	4/26/2018	Conclusions are well-supported, no indirect or cumulative impacts that were not considered.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
188-1	Jerry Isham	HI	4/26/2018	Management and operation of HI's fishery sets standard for the rest of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
188-2	Jerry Isham	HI	4/26/2018	Reopen trade now that science has proven its stable; fisherman can go back to feeding their families.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
189-1	C Colbert	TX	4/26/2018	Be fair and judicial; HI's fisherens are doing right by our waterways and inhabitants - deal with the few who might not be doing the right thing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
190-1	Ron Tubbs	HI	4/26/2018	Laws affecting ecological concerns must be based in science or they will undermine the meaning and importance of real ecological issues; untruths of HI's fish populations do not align with 17 years of scientific studies.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
190-2	Ron Tubbs	HI	4/26/2018	Additional laws that took effect in 2014/2015 are in place to ensure sustainability and have been effective.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
190-3	Ron Tubbs	HI	4/26/2018	HI's aquarium fishery management has been touted worldwide as an exemplar; hope those making decisions can make the right one like Honorable Governor David Ige (http://www.reef2rainforest.com/2017/06/01/scientists-implore-hawaiis-governor-use-science-to-manage-aquarium-fish-collecting/).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
191-1	Gary Jones	PA	4/27/2018	Fishery is sustainable and a worthy activity to educate our population about the oceans and reef systems.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
192-1	Jim Elder	HI	4/26/2018	As a long time collector, can attest that the reefs in North and South Kohala, with the exception of Kawaihae harbor, are in really good shape; plentiful fish populations and reproduce twice a year.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
193-1	Charles Wall	TX	4/27/2018	Conclusions are well-supported and include all available scientific information.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
193-2	Charles Wall	TX	4/27/2018	Management and operation of HI's fishery sets standard for the rest of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
193-3	Charles Wall	TX	4/27/2018	Demonstrate that fish populations are stable/growing and fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
194-1	Jerry Morrissey	IL	4/26/2018	Comprehensive documents including all available scientific information.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
194-2	Jerry Morrissey	IL	4/26/2018	Justify the reopening of the fishery based on scientific information.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
195-1	Jose Enovejas	HI	4/26/2018	As a salt water fish hobbyist, personally know two fish collectors - this decision will affect their businesses.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
195-2	Jose Enovejas	HI	4/26/2018	Examine the EA results, stating not significant threat and sustainability of the industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
195-3	Jose Enovejas	HI	4/26/2018	Tropical fish play important part in my life and being able to purchase HI fish keeps the prices low.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
196-1	John Moyles	WI	4/27/2018	Comprehensive documents including all available scientific information.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
196-2	John Moyles	WI	4/27/2018	Well-supported conclusions that the fisheries will not result in adverse effects on the environment; if decision is based on science, the assessments justify the reopening of the fishery, which sets the standard for the rest of world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
197-1	Louie Polsinelli	WI	4/27/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
197-2	Louie Polsinelli	WI	4/27/2018	Well-supported conclusions that the fisheries will not result in adverse effects on the environment; no indirect or cumulative impacts that were not adequately considered.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
198-1	Dan Dolapchieff	HI	4/26/2018	Aquarium fishery on west HI is the most studied and protected sustainable fishery in the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
199-1	Haley Baldwin	N/A	4/26/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgefishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
199-2	Haley Baldwin	N/A	4/26/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
199-3	Haley Baldwin	N/A	4/26/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
199-4	Haley Baldwin	N/A	4/26/2018	Needs to be a limit; must conserve resources wisely to protect fish that are disappearing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). The Hawai'i FEA discusses existing regulations, including the White List and existing bag limits, in Section 1.2. The O'ahu FEA discusses existing regulations, including bag and size limits, in Section 1.2.3. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu.
199-5	Haley Baldwin	N/A	4/26/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
200-1	Linda Willaby	HI	4/25/2018	Concerned about the following species: Yellow Tangs, All Top 20 species taken on Oahu, Surgeonfishes, Moorish Idols, Angelfishes.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
200-2	Linda Willaby	HI	4/25/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
200-3	Linda Willaby	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Puna, Hilo, Waikiki/Diamond Head, Maui / Molokai / Lanai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
200-4	Linda Willaby	HI	4/25/2018	In last ten years, have seen greatly diminished fish popuations (examples of species and place given); will never recover without a long moratorium period.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
200-5	Linda Willaby	HI	4/25/2018	Reef fish must also contend with ecological disasters of global warming, coral die off, and ocean pollution.	Comment noted. Cumulative impacts from other sources, including global warming, are discussed in Section 5.4.3 of both FEAs.
200-6	Linda Willaby	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
201-1	James Long	HI	4/26/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
201-2	James Long	HI	4/26/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
201-3	James Long	HI	4/26/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
201-4	James Long	HI	4/26/2018	Steady decline in reef fish over last 14 years.	Comment noted. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
201-5	James Long	HI	4/26/2018	Hawaii needs to transition to more sustainable jobs and protect its coastal resources.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
201-6	James Long	HI	4/26/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
202-1	Adam Welch	AZ	4/28/2018	Aquarium fish populations are stable or growing, and the fishery is not adversely affecting these or other fish populations in Hawaii; fishery is well managed by the State.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
202-2	Adam Welch	AZ	4/28/2018	Conclusion reached based on the data is well-supported; no indirect or cumulative impacts that were not adequately considered; justify the reopening of the fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
202-3	Adam Welch	AZ	4/28/2018	Home aquariums offer sanctuary from rising sea temperatures and ocean acidification; do what is best for our ecosystem and our heritage as a species.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
203-1	Ryan Fracess	NY	4/29/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
204-1	Judith Perino	N/A	4/27/2018	Increase in population and density; WHRFMA on HI Island is best managed fishery in the world; juvenile fish have a 97% natural mortality rate due to predation and other natural occurrences	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
204-2	Judith Perino	N/A	4/27/2018	Public aquariums and hobbyists are key to enriching our understanding and enjoyment of life below the ocean's surface.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
204-3	Judith Perino	N/A	4/27/2018	Collectors have partnered with DLNR and other working groups over the past 18 years to craft a management plan to ensure vitality and sustainability.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
204-4	Judith Perino	N/A	4/27/2018	Law dictates that HEPA must be applied fairly, so either everyone needs a HEPA review or all CML permits should be exempt.	Comment noted. The applicant supports full enforcement of all applicable regulations.
205-1	Mary B	N/A	4/26/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgefishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
205-2	Mary B	N/A	4/26/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
205-3	Mary B	N/A	4/26/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
205-4	Mary B	N/A	4/26/2018	No comparison to how the reefs used to look back in the 1960s.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
205-5	Mary B	N/A	4/26/2018	Marine aquarium trade is no different than the illegal poaching and harvesting of the world's exotic wildlife; need to protect our oceans worldwide.	Comment noted. The applicant supports full enforcement of all applicable regulations.
205-6	Mary B	N/A	4/26/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
206-1	Charles Laquidara	HI	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
206-2	Charles Laquidara	HI	4/27/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
206-3	Charles Laquidara	HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Hilo, Hamakua, North Shore, Leeward, Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
206-4	Charles Laquidara	HI	4/27/2018	Watched as reefs and creatures around them have diminished over last 20 years; stop favoring aquariums and commercial outfits that are not giving back to the sea.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
206-5	Charles Laquidara	HI	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
207-1	Mark Schacht	N/A	4/25/2018	Concerned about the following species: Yellow Tangs, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
207-2	Mark Schacht	N/A	4/25/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
207-3	Mark Schacht	N/A	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, Kaneohe/Windward, North Shore, Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
207-4	Mark Schacht	N/A	4/25/2018	As professional diver, strong oppose the resumption of the aquarium trade anywhere in HI and challenge the notion that there has been no significant impact; personally witnessed the slow but steady loss of healthy reef accompanied by significant reef fish species degradation/elimination.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)
207-5	Mark Schacht	N/A	4/25/2018	Not all at the hands of the industry, but its role exacerbates these trends and should be eliminated; DLNR cannot establish base lines and sustainable take limits demonstrates that it is incapable to exercise any meaningful oversight role.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact.
207-6	Mark Schacht	N/A	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
208-1	Judith Cucco	HI	4/26/2018	Concerned about the following species: All Top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
208-2	Judith Cucco	HI	4/26/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
208-3	Judith Cucco	HI	4/26/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Hawaii Kai, Kaneohe/Windward.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
208-4	Judith Cucco	HI	4/26/2018	Have completed over 850 species and abundance surveys for Reef Environmental Education Foundation on Oahu since 2010; data indicates a decline in the number of fish/species.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
208-5	Judith Cucco	HI	4/26/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
209-1	Richard Reed	HI	4/25/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
209-2	Richard Reed	HI	4/25/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
209-3	Richard Reed	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Hilo.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
209-4	Richard Reed	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
210-1	Uwe Giebel	Germany	4/28/2018	Need the aquarium fish from HI for German Aquarist; please allow permits.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
211-1	Travis Terazono	N/A	4/29/2018	Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DLNR and NOAA.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
212-1	Atlantis Aquarium	Germany	4/30/2018	German hobbyists love to keep species from HI islands; helps to preserve coral reefs because awareness is generated.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
213-1	Jan Sabmann	Germany	4/29/2018	Need HI fish for German customers.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
214-1	Atlantic Pacific Tropicals	FL	4/25/2018	Fishery is sustainable; consitutional right to pet fish for enjoyment	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
214-2	Atlantic Pacific Tropicals	FL	4/25/2018	Only small areas collected from and small portions of the highly renewable fish populations.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
214-3	Atlantic Pacific Tropicals	FL	4/25/2018	Moral and legal travesty that the small mesh aquarium permits were removed; make daily limits of collections with a monthly cap as compromise for the benefit of all.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Additional alternatives with new bag limits were added to both FEAs.
215-1	Jeff Kuwabara	HI	4/25/2018	DAR data has been misused by Snorkel Bob and Rene Umberger to try to show the decimating of the fish populations, when the data clearly shows the opposite.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
215-2	Jeff Kuwabara	HI	4/25/2018	So many environmental influences on fish populations; lines on the chart (attached) show that changes are not driven by the aquarium industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
215-3	Jeff Kuwabara	HI	4/25/2018	Banning the industry has put a needless hardship on the collectors, with no changes to commercial fishing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
215-4	Jeff Kuwabara	HI	4/25/2018	If reef scientists say aquarium collecting is sustainable, then do a better job of monitoring take, limit the number of permits, continue to limit the species list and bag limits, but leave keep things open to allow these people to make a living.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
216-1	Peter Caldwell	HI	4/28/2018	Approve the Tropical Fish EA as being accurate and appropriate.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
216-2	Peter Caldwell	HI	4/28/2018	Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DLNR and NOAA.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
217-1	Jason McCohen	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
218-1	William Hartwell	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
219-1	Jay Sung	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
220-1	Daryl Uyeda	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
221-1	Jack Cao	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
222-1	Kasey Kawamoto	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
223-1	Kevin Winchester	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
224-1	Mark Cao	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
225-1	Glenn Akiona	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
226-1	Donna LaFrance	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
227-1	James LaFrance	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
228-1	Cody Segawa	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
229-1	Cathy Goff	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
230-1	Jeff Goff	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
231-1	Ihilani Mangca	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
232-1	Debra L. Mangca	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
233-1	Frederick D. Mangca	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
234-1	Jonathon Stevens	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
235-1	Charlene Sweet	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
236-1	William Simonsen	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
237-1	Cheryl Park	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
238-1	Jason Pinero	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
239-1	Raegan Vilanueva	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
240-1	Delmiro R. Villanueva	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
241-1	Michael B. Zafrahr	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
242-1	Tim Pochef	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
243-1	Michael Allison	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
244-1	Stormi Allison	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
245-1	Nick Ramirez	HI	4/28/2018	DEA shows aquarium fishery is sustainable; since establishment of the WHRFMA, the population has increased.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
245-2	Nick Ramirez	HI	4/28/2018	DEA requirement took away my job.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
245-3	Nick Ramirez	HI	4/28/2018	Testimonies that don't support the DEA are not supported by scientific data; any duplicate copy testimonies by different persons should not count because they are not the opinion of the actual person and may be the same person making multiple testimonies.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
246-1	Hawaii Tropical Fish Company	HI	4/28/2018	Have a thirty plus year industry and world class fishery that is sustainable; only fishery that targets juvenile fish.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
246-2	Hawaii Tropical Fish Company	HI	4/28/2018	Support the scientific facts; hurts the opposition's feelings, but tell that to the full time fishermen's families who have had their livelihoods ripped out from under them.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
247-1	Janelle Kiefer	HI	4/29/2018	West HI Aquarium Fishery management is the gold standard of fishery management worldwide; proven sustainable at current levels.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
247-2	Janelle Kiefer	HI	4/29/2018	House Bill 306 set aside 35% of the reef to preserve the resources for future generations and there is no evidence to support the depletion of the resources due to overfishing.	Comment noted. House Bill 306 is discussed in Section 1.2.3 of the Hawai'i FEA.
247-3	Janelle Kiefer	HI	4/29/2018	Fishermen depend on their trade to support their families and need their licenses restored.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
248-1	Randy	N/A	4/29/2018	Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DLNR and NOAA.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
249-1	Eileen McKee	HI	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Bandit Angelfish, Angelfishes, Dragon Eels.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
249-2	Eileen McKee	HI	4/25/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
249-3	Eileen McKee	HI	4/25/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
249-4	Eileen McKee	HI	4/25/2018	Have enough greed killing our world; stop theft of precious resoureces.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
249-5	Eileen McKee	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
250-1	Laurie Pottish	HI	4/25/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
250-2	Laurie Pottish	HI	4/25/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclud no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
250-3	Laurie Pottish	HI	4/25/2018	Has been going on far too long; stop it now before it is too late.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
250-4	Laurie Pottish	HI	4/25/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
251-1	Dennis Yamaguchi	HI	4/30/2018	Periodic and seemingly random blooms of various fish, which should be considered in any evaluation of sustainable populations of fish in HI; The following are exception fish and invertebrate recruitments I have personally observed in the last fifty years: o 1963 – Cigar Wrass – <i>Chielo inermis</i> o 1966 – Moi- <i>Polydactylis sexfilis</i> o 1968-1969- Aweoweo – <i>Priacanthus cruentatus</i> o 1971 – RazorfishWrass – <i>Xyrichtys umbrilatus</i> o 1975 – Redtail Filefish- <i>Pervagor spilosoma</i> o 1976 – Yellow Tang – <i>Zebrasoma flavescens</i> o 1980 – Blue Goby – Eleotrid sp. o 1984-1987 - Redtail File – <i>Pervagor spilosoma</i> o 1987- Eel Cleaner Shrimp – <i>Lysmata amboinensis</i> o 1996 - Blue-eye Chromis – <i>Chromis ovalis</i> o 2002 – 2006 – Hawaiian Hogfish – <i>Bodianus bilunulatus</i> o 2010 – Flame Wrass – <i>Cirrhilabrus jordani</i> o 2014 – Yellow Tang (<i>Zebrasoma flavescens</i>), Pyramid Butterfly (<i>Hemitaurichthys polylepis</i>), Heniochus Butterfly (<i>Heniochus diphreutes</i>), Omilu (<i>Caranx melampygus</i>) o 2017 – Fisher’s Angel (<i>Centropygy fisheri</i>)	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Cumulative impacts from other sources, including tourism, are discussed in Section 5.4.3 of both FEAs.
251-2	Dennis Yamaguchi	HI	4/30/2018	Without a long historical first person perspective observing large recruitment events, one could easily come to the wrong conclusion as to how common, rare, over exploited, or abundant a given species is; example of the Redtail file (citations given).	Comment noted. Both FEAs use 18 years of DAR catch data and DAR population trend data where available to assess impact to aquarium fish (Section 5.4 in both the Hawai'i and O'ahu FEA).
251-3	Dennis Yamaguchi	HI	4/30/2018	While it is undeniable we catch fish and therefore affect their numbers, I believe the finding of no significant impact holds true.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
252-1	New Vision Aquatics	HI	4/30/2018	Approve of the Tropical Fish EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
252-2	New Vision Aquatics	HI	4/30/2018	Time to manage the fishery scientifically and not emotionally; fact based decisions so that the fishermen can respect the decisions of those in charge of our islands' resources.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
253-1	Exotic Sealife International	FL	4/30/2018	Approve of the Tropical Fish EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
253-2	Exotic Sealife International	FL	4/30/2018	Have found the fish life in HI to be abundant and plentiful everywhere.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
253-3	Exotic Sealife International	FL	4/30/2018	FL and HI only states with individuals relying on tropical fish collection as their only means of an income.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
254-1	David Lum	HI	4/30/2018	Approve of the Tropical Fish EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
254-2	David Lum	HI	4/30/2018	Fish in home aquaria the best way to educate myself, my family, my friends, and visitors on the diversity, biology, and ecology of our marine fish species.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
254-3	David Lum	HI	4/30/2018	To not pass the EA would mean that HI is incapable of making sound policy based on proven scientific facts.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
255-1	Scott Mudd	HI	4/27/2018	EA shows that the industry is sustainable and has been for the past thirty years.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
255-2	Scott Mudd	HI	4/27/2018	Do not allow a few ethically-challenged mainland-sponsored people to get away with unsubstantiated, morally corrupt, and purposefully-deceitful claims; shameful that State Supreme Court repeatedly fails to discern fact and scientific evidence from holier-than-thou preaching.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
256-1	199799997	N/A	4/28/2018	Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
257-1	Mary Metcalf	HI	4/27/2018	DEA does not appear to fully comply with HEPA since it does not adequately describe the affected environment or identification and mitigation of cumulative and secondary impacts, including long term effects; many impacts affecting this fishery (examples given) that were not adequately addressed.	Comment noted. The FEAs both include a section on the affected environment (Section 4.0 in both FEAs) and a section on environmental consequences (Section 5.0 in both FEAs), including discussion of direct impacts, indirect impacts, and cumulative impacts. A statement regarding mitigation was added to Section 5.5 in both FEAs.
257-2	Mary Metcalf	HI	4/27/2018	As DLNR recommended in their Dec. 2014 report, their recommended actions should be put in place as mitigation before permitting for commercial aquarium fishing is allowed to resume.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alternative proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
257-3	Mary Metcalf	HI	4/27/2018	The DEA is woefully lacking in early consultation with citizen stakeholders, especially concerned community members and conservation groups, and the alternatives analysis does not include input from the community; both are required in HEPA.	Comment noted. The FEAs have been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs.
257-4	Mary Metcalf	HI	4/27/2018	Data validity is questioned because of the low number of commercial aquarium permit holders who are submitting catch reports (less than half); puts into question the determination of no significant impact.	Comment noted. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors. The applicant is unaware of any specific examples or information supporting statements about underreporting in Hawaii, and not such information was provided by the commenter.
257-5	Mary Metcalf	HI	4/27/2018	Black markets more than likely exist in this lucrative international business, prompting both the under reporting of catch and non permitted collecting; effective enforcement should be included as a mitigation measure to help ensure both the accuracy of catch reports and minimization of non permitted activity.	Comment noted. The applicant supports full enforcement of all applicable regulations. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors. The applicant is unaware of any specific examples or information supporting statements about underreporting in Hawaii, and not such information was provided by the commenter.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
257-6	Mary Metcalf	HI	4/27/2018	HI State Legislature and DLNR are highly encouraged to pursue legislation and rule making for the DLNR recommended actions as mitigation measures for commercial aquarium fishing in West HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As such, no mitigation is currently proposed.
258-1	Jim Sims	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
258-2	Jim Sims	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
258-3	Jim Sims	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Hilo, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
258-4	Jim Sims	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
259-1	Alice Hughes	HI	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
259-2	Alice Hughes	HI	4/27/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
259-3	Alice Hughes	HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Puna, South Kohala, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
259-4	Alice Hughes	HI	4/27/2018	When snorkeling, there are hardly any fish near Maui and decline in colorful fish along Kona Coast and Kohala Coast	Comment noted. Commercial aquarium collection on the island of Maui is not covered by either FEA. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. TThis level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
259-5	Alice Hughes	HI	4/27/2018	Help keep our reefs for future generations; can't harvest trees from the National Park, so people shouldn't be able to profit from our wildlife.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
259-6	Alice Hughes	HI	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
260-1	Bruce Oatway	HI	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
260-2	Bruce Oatway	HI	4/27/2018	Specific concerns about these species: Species I once encountered are missing, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
260-3	Bruce Oatway	HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Hilo, Hamakua.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
260-4	Bruce Oatway	HI	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
261-1	Jennifer Valentine	N/A	5/1/2018	Lost abundance, missing species, and diminished beauty.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
261-2	Jennifer Valentine	N/A	5/1/2018	Asking for a full assessment of the trade's environmental, cultural, and ethical impacts.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required. Environmental and cultural impacts are discussed in Section 5.0 (Environmental Consequences) of both FEAs.
262-1	Big Island Association of Aquarium Fishermen	HI	4/26/2018	DEA includes all available scientific information on the effects of the Hawaii aquarium fishery on the environment; conclusion is well-supported.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
262-2	Big Island Association of Aquarium Fishermen	HI	4/26/2018	Management and operation of HI's fishery sets standard for the rest of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
262-3	Big Island Association of Aquarium Fishermen	HI	4/26/2018	Conservation measures: Three species of land fish are harvested at a rate of 5% or less of the population, which is on the low end of what published literature considers sustainable harvest; remaining permitted species are harvested at less than 1% of the overall population.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
262-4	Big Island Association of Aquarium Fishermen	HI	4/26/2018	Comprehensive rules package (HAR 13-60.4) passed with layers of additional management, including: bag limits and/or size restrictions on the three most landed fish, establishment of a White List of approved species, expansion of the Pebble Beach FRA, creation of an additional required permit.	Comment noted. This is discussed in Section 1.2.3.1 of the Hawai'i FEA.
262-5	Big Island Association of Aquarium Fishermen	HI	4/26/2018	Population trends of the Achilles tang comments: conservation measures include adoption of a closure of 35% of the WHRFMA from the harvest of aquarium fish (Act 306), ban on all aquarium fishing at night, bag limit of 10 Achilles per aquarium fisher per day (HAR 13-60.4).	An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA.
262-6	Big Island Association of Aquarium Fishermen	HI	4/26/2018	BIAFF proposes that the DLNR implement a conservation measure limiting catch of Achilles tang in the WHRFMA in all fisheries to 5 per day, as well as suggest and support that the HEPA review period coincide with the five year report to the legislature.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA.
262-7	Big Island Association of Aquarium Fishermen	HI	4/26/2018	For some species, recruitment can be highly variable between years, as noted by Dr. Walsh; therefore, encourage the HEPA review process to begin in conjunction with the next report commencing with 2024 and each five year period thereafter.	Comment noted As stated in Section 5.5 of the FEAs, the DLNR will reevaluate the analysis contained in the FEAs on an annual basis prior to renewal or issuance of new commercial aquarium permits, and will assess if any new information exists warranting reevaluation of this analysis.
262-8	Big Island Association of Aquarium Fishermen	HI	4/26/2018	Request the advancement and restoration of commercial licenses and allowing use of fine mesh net as soon as possible.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
263-1	Joseph Genero	VA	4/30/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
264-1	Phil Shane	CA	4/30/2018	Been in fish business for 40 years; industry is proven to be sustainable, as fish reproduce and over compensate for any taken by fisherman.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
265-1	Crowell Cardneaux	MT	5/1/2018	Ban has negatively impacted my Aquarium Store in Billings, MT; please don't close the most sustainable ornamental fishery and a gold standard among the industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
265-2	Crowell Cardneaux	MT	5/1/2018	Aquariums teach people in landlocked states the importance of ocean conservation, local waterway conservation, and make people more aware of our global footprint.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
266-1	Hunter Musser	OK	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
266-2	Hunter Musser	OK	5/1/2018	Management and operation of HI's fishery sets standard for the rest of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
266-3	Hunter Musser	OK	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
267-1	David Mcrec	NC	5/1/2018	There are tons of people who depend on this.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact. Impacts to socioeconomics are discussed in Section 5.2 of the FEAs.
268-1	Mike Bencik	IL	4/30/2018	Closing collections would hurt the aquarium industry cutting off all Hawaiian fish collecting.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
269-1	Jeff Larson	MI	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
270-1	Carl Jellings	HI	4/30/2018	Have fished for 46 years full time and fully support the EA and professionalism; there is no way to overfish these types of fish.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
271-1	Leatrice Ramos	HI	5/1/2018	Happy to hear that scientific opinion supports the HI fishery; Hawaiian people leaving island to make a living on the mainland because cost of living is so high; trying to support family by catching aquarium fish.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
271-2	Leatrice Ramos	HI	5/1/2018	People who want to shut down the aquarium fishery will next want to stop getting fish from the ocean, too.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
272-1	Janice Kopff	MO	4/30/2018	Several environmental studies prove that the aquarium fishing in HI is probably the most controlled and best managed of any.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
272-2	Janice Kopff	MO	4/30/2018	Observed many other activities (examples given) that kill fish and destruct the reef, which are somehow considered ok.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
272-3	Janice Kopff	MO	4/30/2018	People who collect fish for aquariums pay careful attention to preserving a healthy environment; no decline in tropical fish observed, except in areas overpopulated by dive charter boats.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts, including from tourism, are discussed in Section 5.4.3 of the FEAs.
272-4	Janice Kopff	MO	4/30/2018	First visit to HI was because having seen colorful Hawaiian fish in an aquarium	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
273-1	Audrey Dunleavy	NJ	5/1/2018	Management and operation of HI's fishery sets standard for the rest of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
273-2	Audrey Dunleavy	NJ	5/1/2018	If the decision is based on science rather than politics, it should favor the aquarium fishers.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
274-1	Sean Keller	VA	4/30/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
274-2	Sean Keller	VA	4/30/2018	Conclusions reached are well-supported and no indirect or cumulative impacts that were not adequately considered	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
274-3	Sean Keller	VA	4/30/2018	Management and operation of HI's fishery sets standard for the rest of the world; If the decision is based on science rather than politics, it should favor the aquarium fishers.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
275-1	Bill Chang	HI	4/30/2018	EAs include all the best available scientific information on the effects of the HI aquarium fishery on the environment; reasonable and responsible conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
275-2	Bill Chang	HI	4/30/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
276-1	Seth Drago	LA	4/30/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii; conclusions are well-supported.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
276-2	Seth Drago	LA	4/30/2018	I quarantine all fish before putting them in my aquarium to ensure health and to prevent the spread of disease; also use hobbyist forums to teach others; please don't destroy our beloved hobby.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
277-1	Debra Holtz	FL	4/30/2018	Fisheries evaluation shows that there should be no resumption of aquarium fishing, while still following the conservative rules and limits.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
277-2	Debra Holtz	FL	4/30/2018	Better control of pesticides and fertilizers would be helpful to protect the waters and animals in the Hawaiian ocean.	Comment noted. The FEAs analyze the impact of commercial aquarium collection on the environment.
278-1	David Ramos	HI	4/30/2018	Earth justice and those who are backing them don't care about the science of sustainability.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
278-2	David Ramos	HI	4/30/2018	The majority of local people support and depend on the aquarium trade; no have the new Missionary's here to show the local the error of their ways and take away more of the culture.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
279-1	Lauren Cardneaux	MT	5/1/2018	Educator with reef aquarium in classroom; educational value of having this aquarium in a place with no access to a public aquarium or ocean.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
280-1	Corey Derrick	SC	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii; conclusions are well-supported.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
281-1	Angelle Sampey	LA	5/1/2018	Comprehensive documents including all the available scientific information; draw reasonable and responsible conclusions that are well-supported.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
281-2	Angelle Sampey	LA	5/1/2018	This is my family's livelihood; please don't take it away from us.	
282-1	Richard Bullard	SC	5/1/2018	When managed appropriately and allowed for further scientific discovery, limited collection can be mutually beneficial for both aquatic and humankind.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
283-1	Sofia Lindgren	Czech Republic	4/30/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
284-1	Kapil Mandrekar	NY	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
284-2	Kapil Mandrekar	NY	5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
284-3	Kapil Mandrekar	NY	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
285-1	Sam Price	LA	5/1/2018	Sister has been conservationist, animal rights activist, and fish collector on HI for over 20 years; ban threatens her livelihood.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
285-2	Sam Price	LA	5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
285-3	Sam Price	LA	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
286-1	Lewis Burks	SC	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
286-2	Lewis Burks	SC	5/1/2018	Conclusions are well-supported; no direct or cumulative impacts that were not adequately considered.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
287-1	Kris Stone	NC	5/2/2018	Democrats are ruining this country.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
288-1	Jack Rogers	PA	5/1/2018	Obvious that scientific evidence to keep the HI fishery open is clear.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
288-2	Jack Rogers	PA	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
289-1	Cody LeBert	LA	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
289-2	Cody LeBert	LA	5/1/2018	Conclusions are well-supported; no direct or cumulative impacts that were not adequately considered; include all available scientific information.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
290-1	Pete Basabe	HI	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
290-2	Pete Basabe	HI	5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
290-3	Pete Basabe	HI	5/1/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
291-1	TI Lasseter	HI	4/30/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
291-2	TI Lasseter	HI	4/30/2018	Conclusions are well-supported and does not have any indirect or cumulative impacts that were not adequately considered.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
291-3	TI Lasseter	HI	4/30/2018	Please do not close this business; it is my livelihood and I need this job.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
292-1	Kevin Sutowski	NJ	5/1/2018	Please do an equivalent and thorough assessment of the fishing for food industry in comparison and look at the waste fish from that.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial (non-aquarium) fishing, are discussed in Section 5.4.3 of both FEAs.
292-2	Kevin Sutowski	NJ	5/1/2018	Believe these study data on the aquarium trade fisheries will show they actually benefit the reefs sustainability.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
293-1	Kris Cline	NC	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
293-2	Kris Cline	NC	5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
294-1	Robert Miller	FL	5/2/2018	Targeting an entire industry is ridiculous, especially when ban is based on political correctness and not hard scientific facts.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
294-2	Robert Miller	FL	5/2/2018	Only thing it will accomplish is more fish being collected from countries with looser regulations.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
295-1	Shane Howard	MT	5/2/2018	Many people around the world love fish keeping; if these fish are not around for the hobby, will have large impact on how people care for the ocean and its beauty.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
296-2	Daniel Jeffery	FL	5/2/2018	Oceans under threat from many angles (acidification, pollution, commercial fishing); saltwater aquarists doing everything we can to breed many species in captivity (may ultimately prevent extinction).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
296-3	Daniel Jeffery	FL	5/2/2018	These animals are not pulled out and killed, they are members of our family and we take great care of them.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
296-4	Daniel Jeffery	FL	5/2/2018	Imposing limits or seasons is fine, but please allow us to continue our Noah's Ark mission.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
297-1	Kevin Olivier	LA	5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
297-2	Kevin Olivier	LA	5/1/2018	Comprehensive documents including all available scientific information and draw reasonable conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
297-3	Kevin Olivier	LA	5/1/2018	If there are species that are truly endangered by this practice, I believe in restricting the fishing of those species.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)
298-1	Amber Moran	CO	5/1/2018	Please base decisions on scientific data; any fishing or hunting population that is properly managed can have positive benefits to wild populations, as well as economic benefits and create awareness of these valuable resources.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
299-1	Joe Naquin	LA	5/1/2018	Great advances have been made on keeping marine animals alive for a sustainable length of time.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
299-2	Joe Naquin	LA	5/1/2018	Education is key to keeping marine animals alive; should be a web course required for all reef keepers.	Comment noted.
299-3	Joe Naquin	LA	5/1/2018	Management and operation of Hawaii's fishery is outstanding and sets the standard for the rest of the world; if decision is a scientific rather than political one, the EAs justify the reopening of the fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
300-1	Richard Pyle	HI	5/1/2018	Extremely impressed with how comprehensive, unbiased, and accurate the EAs are.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
300-2	Richard Pyle	HI	5/1/2018	Dishonest distortions, or outright misrepresentations of facts, from people who claim to be concerned with protecting HI's reefs.	Comment noted. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
300-3	Richard Pyle	HI	5/1/2018	In any industry, there are of course some "bad apples" who engage in inappropriate or illegal activities; frequency of such individuals and instances within the marine aquarium trade in HI have been very few and far-between.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The applicant supports full enforcement of all applicable regulations.
300-4	Richard Pyle	HI	5/1/2018	The VAST majority of fishermen and others involved with the trade are far more responsive in their practices to recommendations by the research community than almost any other commercial enterprise that I'm familiar with; the largely self-imposed practices of HI's aquarium fish collectors are widely regarded as the international "gold standard" for how aquarium fishes should be collected.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
300-5	Richard Pyle	HI	5/1/2018	Study after study has found that environmental impact of responsible commercial aquarium fish collecting is negligible compared with other kinds of commercial fishing or environmental resource exploitation.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
300-6	Richard Pyle	HI	5/1/2018	Marine aquarium fish collectors have consulted researchers, self-regulated, etc. but are constantly forced to defend themselves and their industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
300-7	Richard Pyle	HI	5/1/2018	Strongly urge to put actual scientific evidence above intense and largely uninformed passion in all aspects of the decision-making process moving forward on this issue.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
301-1	Earl Bialeck	HI	4/29/2018	Concerned about the following species: Cleaner Wrasses, All Top 20 species taken on Oahu, Leaf Scorpionfish.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
301-2	Earl Bialeck	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
301-3	Earl Bialeck	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
301-4	Earl Bialeck	HI	4/29/2018	Whenenver money is involved in somebody's motivation you can be certain they do not have the interest of the greater good in mind; do the right thing and do the proper EA's.	Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.
301-5	Earl Bialeck	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
302-1	Velvet Replogle	HI	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Angelfishes.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
302-2	Velvet Replogle	HI	4/27/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
302-3	Velvet Replogle	HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
302-4	Velvet Replogle	HI	4/27/2018	Over 30 years, seen slow but very significant reduction in the number of tropical fish on the west side of HI island.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
302-5	Velvet Replogle	HI	4/27/2018	Need to find a way to enforce the rules put in place years ago.	Comment noted. The applicant supports full enforcement of all applicable regulations. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.
302-6	Velvet Replogle	HI	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
303-1	Jeffrey Iverslie	HI	5/1/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
303-2	Jeffrey Iverslie	HI	5/1/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
303-3	Jeffrey Iverslie	HI	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
303-4	Jeffrey Iverslie	HI	5/1/2018	Reef ecosystems are already struggling with man made pollution and warming ocean temperatures; have witnessed firsthand the decline in reef fish over last 15 years.	Comment noted. The cumulative impacts of global warming and coral bleaching are discussed in Section 5.4.3 of both FEAs.
303-5	Jeffrey Iverslie	HI	5/1/2018	Removing already plummeting population of reef fish is going to damage HI's ability to compete for global tourism dollars	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)</p> <p>Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p>
303-6	Jeffrey Iverslie	HI	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
304-1	Christopher Kim	HI	4/30/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All Top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
304-2	Christopher Kim	HI	4/30/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted & the balance has been altered, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
304-3	Christopher Kim	HI	4/30/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
304-4	Christopher Kim	HI	4/30/2018	In last 30 years, many species have been significantly reduced; see few flame wrasse, yellow tangs, bandits.	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>An additional alternative has been added to the O'ahu FEA imposing a bag limit on Flame Wrasse. Yellow Tang are already regulated on both islands with bag limits and size limits.</p>
304-5	Christopher Kim	HI	4/30/2018	Impact of tourism dollars and the care of our ocean environments should be the primary motivation.	<p>Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p> <p>As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
304-6	Christopher Kim	HI	4/30/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
305-1	Karie Smart	HI	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Angelfishes, Dragon Eels, HI Turkeyfish.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
305-2	Karie Smart	HI	4/27/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health & beauty of our reefs, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
305-3	Karie Smart	HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Kauai, North Kohala, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
305-4	Karie Smart	HI	4/27/2018	For the past three years, the Hawaii Kona coast appears to be barren.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
305-5	Karie Smart	HI	4/27/2018	See visitors dipping for fish and throwing them in cooler to ship back home; amateur fish collector saying they just come back for more fish when they die.	Comment noted. The FEAs evaluate the impacts of commercial aquarium collection. Recreational aquarium collection is discussed in Section 5.4.3.1 of both FEAs.
305-6	Karie Smart	HI	4/27/2018	Without the fish, the algae is taking over the reef and large marine life is suffering; if we don't take a stand, there will be nothing left to share with future generations outside of a zoo.	Comment noted. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
305-7	Karie Smart	HI	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envriental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
306-1	Stone Willow	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
306-2	Stone Willow	HI	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
306-3	Stone Willow	HI	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
306-4	Stone Willow	HI	4/28/2018	Heard from several friends that they were disappointed with the poor numbers and lack of diversity of our fish along reefs compared to other places they've gone to.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
306-5	Stone Willow	HI	4/28/2018	Not only the fishing for aquarium industry but also the local fishermen who flout the laws and use throw nets where it's prohibited.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing and tourism, are discussed in Section 5.4.3 of both FEAs. The applicant supports full enforcement of all applicable regulations.
306-6	Stone Willow	HI	4/28/2018	Other stresses the reef and fish are experiencing across different areas of our islands.	Comment noted. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
306-7	Stone Willow	HI	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
307-1	Sean Dyer	HI	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
307-2	Sean Dyer	HI	4/27/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
307-3	Sean Dyer	HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
307-4	Sean Dyer	HI	4/27/2018	Reefs are under great strain.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing and climate change, are discussed in Section 5.4.3 of both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
307-5	Sean Dyer	HI	4/27/2018	Exporting the fish tourists come to see is depleting our natural resources; hard to find many species now.	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>Sections 4.1 and 5.2 of each FEA addresses Socioeconomics the various aspects of your comment. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p>
307-6	Sean Dyer	HI	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
308-1	Irene Newhouse	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
308-2	Irene Newhouse	HI	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
308-3	Irene Newhouse	HI	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
308-4	Irene Newhouse	HI	4/28/2018	Human impact on the environment today is so immense, it makes no sense to allow unregulated harvesting of any natural portion of the environment.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>In addition, both FEAs discuss the existing regulations that govern commercial aquarium fish collection. Both FEAs also include a new Preferred Alternative with additional regulations.</p>
308-5	Irene Newhouse	HI	4/28/2018	Makes more sense to breed aquarium fish, especially since a significant fraction of the fish they acquire probably die.	Comment noted. The action being evaluated in the FEAs is commercial aquarium collection. Because mortality post-collection is not anticipated to change from current conditions, it is not anticipated that this factor will alter the estimated collection numbers.
308-6	Irene Newhouse	HI	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
309-1	Matthew Gurewitsch	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Moorish Idols, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
309-2	Matthew Gurewitsch	HI	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
309-3	Matthew Gurewitsch	HI	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Ka'u.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
309-4	Matthew Gurewitsch	HI	4/28/2018	In past seven years, have witnessed disappearance of pennant butterflyfish, leaf scorpionfish, cleaner wrasse, and several other species from the South Kihei beaches.	Comment noted. Commercial aquarium collection on the Island of Maui is not covered by either FEA.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
309-5	Matthew Gurewitsch	HI	4/28/2018	To stand indly by as the aquarium trade aggravates the stresses on our ecosystem is simply unconscionable.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
309-6	Matthew Gurewitsch	HI	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
310-1	Anne Allison	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Snowflake eels, Frogfishes, Moorish Idols, Angelfishes, Dragon Eels, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
310-2	Anne Allison	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
310-3	Anne Allison	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
310-4	Anne Allison	HI	4/29/2018	Over the years, the variety and numbers of fish have declined while the green turtles have increased.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
310-5	Anne Allison	HI	4/29/2018	To stand indly by as the aquarium trade aggravates the stresses on our ecosystem is simply unconscionable.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
310-6	Anne Allison	HI	4/29/2018	The big money of the tourist trade would also benefit from healthier reefs and greater fish populations.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
310-7	Anne Allison	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
311-1	George Burnette	HI	4/28/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
311-2	George Burnette	HI	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
311-3	George Burnette	HI	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
311-4	George Burnette	HI	4/28/2018	Poor health of the reef and small amount of fish seen at Makena Landing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
311-5	George Burnette	HI	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
312-1	Linda Sue	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
312-2	Linda Sue	HI	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
312-3	Linda Sue	HI	4/28/2018	When looking into the harbor waters, shocked by how many tilapia are there and lack of diversity.	Comment noted. Invasive species are discussed in Section 4.4.9 of the O'ahu FEA and 4.4.6 of the Hawai'i FEA.
312-4	Linda Sue	HI	4/28/2018	Pet supply aquarium trades' access to Hawaii's fish should be limited and HI's environmental laws should be strictly enforced and perhaps made stronger.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. In addition, both FEAs discuss the existing regulations that govern commercial aquarium fish collection. Both FEAs also include a new Preferred Alternative with additional regulations.
312-5	Linda Sue	HI	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
313-1	Bruce Lowrey	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Leaf Scorpionfish, Flame Wrasses, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
313-2	Bruce Lowrey	HI	4/28/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
313-3	Bruce Lowrey	HI	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui / Molokai / Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
313-4	Bruce Lowrey	HI	4/28/2018	Witnessed disappearance of pennant butterflyfish, leaf scorpionfish, cleaner wrasse and several other species from South Kihei beaches.	Comment noted. Commercial aquarium collection on the island of Maui is not covered by either FEA.
313-5	Bruce Lowrey	HI	4/28/2018	To stand indly by as the aquarium trade aggravates the stresses on our ecosystem is simply wrong; the greater good must prevail over individual, unsustainable exploitation of our common legacy.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
313-6	Bruce Lowrey	HI	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
314-1	Molly Ancona	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
314-2	Molly Ancona	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
314-3	Molly Ancona	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarrium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
314-4	Molly Ancona	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
315-1	Jeremy Bird	N/A	4/27/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
315-2	Jeremy Bird	N/A	4/27/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
315-3	Jeremy Bird	N/A	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka'u, North Kohala, Puna, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Ewa.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
315-4	Jeremy Bird	N/A	4/27/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
316-1	Hazel Churuilla	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
316-2	Hazel Churuilla	HI	4/28/2018	Specific concerns about these species: DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
316-3	Hazel Churuilla	HI	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, North Shore.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
316-4	Hazel Churuilla	HI	4/28/2018	No fishes should be taken out of their homes just to be relocated for people to look at them.	Comment noted. The FEAs analyze the impact of comemrcial aquarium collection on the environment.
316-5	Hazel Churuilla	HI	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
317-1	Paul Friese	HI	4/28/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
317-2	Paul Friese	HI	4/28/2018	Specific concerns about these species: Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
317-3	Paul Friese	HI	4/28/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
317-4	Paul Friese	HI	4/28/2018	Survivability in aquarium trade is under 50%; removing them from their environment creates dead zones hence your marine trophic cascade (proven in Indonesia by someone from HI).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
317-5	Paul Friese	HI	4/28/2018	The fish keep the reef clean from seaweed and algae suffocation.	Comment noted. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance. Also noted in these sections, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
317-6	Paul Friese	HI	4/28/2018	Aquarium trade should have husbandry licenses to produce own for their trade; should also be required to replenish empty reefs.	Comment noted.
317-7	Paul Friese	HI	4/28/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
318-1	Linda Norrington	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
318-2	Linda Norrington	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
318-3	Linda Norrington	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kaneohe/Windward, Leeward, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
318-4	Linda Norrington	HI	4/29/2018	Fewer small reef fish, with Hanama Bay being a prime example, over last 20 years.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
318-5	Linda Norrington	HI	4/29/2018	With coral bleaching and effects of land runoff and sunscreen use, it is foolish to think the current numbers of fish taken can be sustained; limits must be set and enforced, or better yet, a moratorium should be held until all fish stocks can recover.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
318-6	Linda Norrington	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
319-1	Steve Ward	HI	5/1/2018	Confidence not inspired with broad statements such as "reef fish can likely sustain fairly high levels of continuous harvest"; overuse of the word "likely"	Comment noted. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
319-2	Steve Ward	HI	5/1/2018	As noted on page 91, the 2015 coral bleaching resulted in an average cover loss of 49.7%; should not allow the aquarium collection business to add more stress to our precious reefs.	As noted in Section 5.4.1.2.4 of the Hawai'i FEA, the long-term DAR coral monitoring concluded that from 2016 to 2017, approximately one year after coral post-bleaching mortality subsided, minimal change in coral cover was documented within areas open to commercial aquarium collection, compared to a slight decline in mean coral cover in areas closed to collection, and this difference was statistically significant ($p = 0.038$).
319-3	Steve Ward	HI	5/1/2018	DLNR should be doing everything possible to protect our reefs, a crucial economic resource to the entire community; according to page 93, \$1,354,054 is added to the economy by the aquarium fishery (much more added by tourist activities that depend on the reef).	As noted in Section 5.4.1.2.4 of the FEA, two studies have concluded that the aquarium fishery has no significant impact on coral or the reef ecosystem. As noted in Section 5.2.2.2 of the FEA, available data do not suggest that commercial aquarium collection has impacted the tourism industry in Hawai'i. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories.
319-4	Steve Ward	HI	5/1/2018	Public sentiment is on the side of curtailing aquarium collectors and the issue is gaining traction every day as the word spreads.	Comment noted. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
320-1	Martin Selch	Germany	5/1/2018	As a world aquarium exporter, Hawaiian fishes are spectacular in appearance and easy to keep.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
320-2	Martin Selch	Germany	5/1/2018	Hawaiian fisheries have set the world highest standards to which the rest of the world's ornamental fisheries aspire; extremely low or no mortality from Hawaiian exporters.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
320-3	Martin Selch	Germany	5/1/2018	Almost 20 years of data shows how well managed the resources are in HI and how professional aquarium fish collection has been conducted.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
320-4	Martin Selch	Germany	5/1/2018	Request to restore the permits, allow the aquarium trade to continue with the established monitoring system, and to continue the good work of the Hawaiian Fisheries Department.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
321-1	PJBarba	N/A	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
322-1	Carren Solis	N/A	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
323-1	Fred Ong	N/A	4/30/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
324-1	Carl Harrison	HI	4/30/2018	For the Fishes hidden agenda has hidden agenda of abolishment of all marine species capture with the true intention to end all wild caught fish for aquariums; spread disinformation using emotion to gather donations and offiliate with the likes of PETA; infringe of our rights to capture fish and harrass commerical divers; have not disclosed their financial information as required by to operate as a nonprofit in the state of HI.	Comment noted.
325-1	Charles Wall	TX	4/27/2018	Have seen no noticeable decline in number of HI fish; please allow collectors to continue with small mesh nets.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
326-1	Pedro Medina	N/A	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
327-1	Ron Tubbs	HI	4/28/2018	Suspect that the deeper reef replenishes the shallower reef with fish (links included to support this).	Comment noted. Both the Hawai'i and Oahu FEA discuss the that the majority fo the population of several species collected by commercial aquarium collectors are found at depths below 98 feet.
327-2	Ron Tubbs	HI	4/28/2018	Answers about flame wrasse populations: schools range from 80 to 200 feet deep; extremely abundant Halemeda seaweeds are their preferred habitat but they can be found on reef ledges, finger corals, deep ledges, and deep rocky areas; additional location information described	Comment noted. Additional information regarding the deepwater habitat of Flame Wrasse were added to Section 4.4.4.6 in the O'ahu.
327-3	Ron Tubbs	HI	4/28/2018	By rotating our good spots to prevent them from getting net wise, they are a very sustainable fish species; more information available upon request.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
328-1	Mark Cao	HI	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
329-1	Jack Cao	HI	4/28/2018	Please pass assessment; tropical fish industry has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
330-1	Isaac-Paka Harp	HI	4/27/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
330-2	Isaac-Paka Harp	HI	4/27/2018	Specific concerns about these species: Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclud no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
330-3	Isaac-Paka Harp	HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
330-4	Isaac-Paka Harp	HI	4/27/2018	Clear that improvements in management are necessary.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
330-5	Isaac-Paka Harp	HI	4/27/2018	The EA was not prepared by the DLNR but rather by Pet Industry Joint Advisory Council (which does not follow 343-5); Also states that a statement shall be required if the agency finds that the proposed action MAY have signficiant effect on the environment.	As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
330-6	Isaac-Paka Harp	HI	4/27/2018	Request that the DLNR prepare an environmental impact statement that includes the required cultural impacts and the public review and comment process, as well as hold public hearings on all islands where aquarium fish collecting is permitted.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required. Impacts to cultural resources are discussed in Section 5.3 of both FEAs.
330-7	Isaac-Paka Harp	HI	4/27/2018	Under Article 147 of the Fourth Geneva Convention, the occupying power is bound by humanitarian law not to utilize natural resources of the occupied nation for the purposes of its domestic population.	Comment noted. The applicant supports full enforcement of all applicable regulations.
331-1	Christina Nakamura	HI	4/27/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
331-2	Christina Nakamura	HI	4/27/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
331-3	Christina Nakamura	HI	4/27/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Leeward.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
331-4	Christina Nakamura	HI	4/27/2018	Unrestrained fishing for aquariums is wasteful, harmful to reefs and fish, and downright cruel.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
332-1	A Tropical Reef	N/A	5/1/2018	Approve fo the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
333-1	Katja Montaldos	N/A	5/1/2018	Sustainability does not justify capturing wild fish and putting them into aquariums; many fish die not long after being captured.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
333-2	Katja Montaldos	N/A	5/1/2018	Greed for money clouds many people and has previously led to extinction of species.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
334-1	Pond Team	N/A	5/2/2018	Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
335-1	Jennifer Wheeler	N/A	5/2/2018	Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
336-1	Sue E. Dean	CO	5/1/2018	Polls have shown that about 90% of those asked support legislation to phase out the commercial aquarium collection industry.	Comment noted. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
336-2	Sue E. Dean	CO	5/1/2018	Last session, the legislature passed SB-1240 to phase out commercial aquarium collection of reef wildlife but was vetoed by governor.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
336-3	Sue E. Dean	CO	5/1/2018	Hawaii's Constitution makes it clear that public resources are for the public.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
337-1	N/A	N/A	4/28/2018	Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
338-1	Bonnie Good	N/A	4/30/2018	DEAs demonstrate that aquarium fish populations are stable/growing, and the aquarium fishery is not adversely affecting these or other fish populations in Hawaii.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
338-2	Bonnie Good	N/A	4/30/2018	Conclusions are well-supported and no indirect or cumulative impacts were not adequately addressed.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
338-3	Bonnie Good	N/A	4/30/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
339-1	Janiz Palacat	N/A	5/1/2018	DEA provides the best known published scientific data available; data verifies that the management has resulted in increases in both population and density of most of all the collected species	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
339-2	Janiz Palacat	N/A	5/1/2018	Near shore fishery is the best managed and studied and is a role model which other ornamental fisheries around the world emulate.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
340-1	Meerwasser Center Menzel	Germany	5/2/2018	West HI Island Fishery is one of the best managed near shore fisheries in the world and used as a model around the globe.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
340-2	Meerwasser Center Menzel	Germany	5/2/2018	HEPA is intended to measure the impact of removal of these species from their habitat, so management requirements should apply to all extraction, regardless of end use (Kole and Achilles can be spared in any numbers).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing, are included in Section 5.4.3.
340-3	Meerwasser Center Menzel	Germany	5/2/2018	Since Act 306, population estimates of the three most collected fish have increased in both density and abundance.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
340-4	Meerwasser Center Menzel	Germany	5/2/2018	No known published scientific information has been omitted in this document that should result in any alternate conclusion; assessments are thorough and comprehensive.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
341-1	Scott Karsk	N/A	4/28/2018	Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
341-2	Scott Karsk	N/A	4/28/2018	Fish tank used in classroom to learn about coral reefs, food chains, and climate change.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
342-1	Jared Fernley	N/A	4/30/2018	Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
343-1	Robin Kamakahi	N/A	5/1/2018	No significant impact; collectors are responsible.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
343-2	Robin Kamakahi	N/A	5/1/2018	Would be unable to enjoy my hobby and others' livelihoods.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
344-1	Tropical Marine Centre Ltd	United Kingdom	5/1/2018	Tropical aquarium trade is a proven, viable, and sustainable industry; effective management has been demonstrated in many ways.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
344-2	Tropical Marine Centre Ltd	United Kingdom	5/1/2018	No other commercial fishing group is as closely regulated or has such stringent restrictions; oppose any ban that would deny us access and deprive our business of income and the impact of any ban on UK trade would be significant.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
344-3	Tropical Marine Centre Ltd	United Kingdom	5/1/2018	Mortalities are typically less than 0.1-0.3% for transport to the UK.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
344-4	Tropical Marine Centre Ltd	United Kingdom	5/1/2018	Most of the opposition appears based less on the facts and more on an emotional but irrational view.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
345-1	Julia Manglallan	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
346-1	James Cominella	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
347-1	Ted Kiesel	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
348-1	Brianne Higa	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
349-1	Kara Ching	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
350-1	Elise Fernley	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
351-1	Lito Raguindin Jr.	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
352-1	Glendalyn Barit	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
353-1	Darren Matsida	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
354-1	Miles K. Johnson	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
355-1	Michael Inaba	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
356-1	Jase Goff	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
357-1	Janis E. Kurasaki	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
358-1	Lance K. Ikeda	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
359-1	Jacob L. Jensen	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
360-1	Edward Koch	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
361-1	Henry Tilly	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
362-1	Kirsten Jensen	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
363-1	Cory Helliangao	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
364-1	Cory Anthony Helliangao	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
365-1	David Pangugan	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
366-1	Stewart J. Silva	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
367-1	Steven Leons	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
368-1	Murray Armstrong	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
369-1	Mike Kapu	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
370-1	Suki DeRenne	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
371-1	Wylie Ball	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
372-1	Andrew Jerabek	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
373-1	LeAnna Jerabek	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
374-1	Kris Ludwig	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
375-1	Kayla Nelson	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
376-1	Mike Vericker	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
377-1	Luci Price	N/A	4/30/2018	Industry is sustainable and continues to work with DLNR.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
377-2	Luci Price	N/A	4/30/2018	Population estimates have increased.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
377-3	Luci Price	N/A	4/30/2018	HEPA law should apply across the spectrum, not just to the aquarium fish trade.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
377-4	Luci Price	N/A	4/30/2018	No scientific reason for continuing the ban or opposing the renewing of commercial aquarium permits.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
378-1	Arie de Jong, De Jong Marinelife	Netherlands	5/1/2018	Most sustainable, transparent, and traceable of all fishes in the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
378-2	Arie de Jong, De Jong Marinelife	Netherlands	5/1/2018	Management requirements should apply to all extraction, regardless of end use.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing, are included in Section 5.4.3.
378-3	Arie de Jong, De Jong Marinelife	Netherlands	5/1/2018	Population density and abundance increases since the implementation of the 2014 Rules.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
378-4	Arie de Jong, De Jong Marinelife	Netherlands	5/1/2018	Documents are thorough, comprehensive, and include the best available research.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
379-1	Steve Mertens, De Jong Marinelife	Netherlands	5/2/2018	Would be a loss for the aquarium trade if certain species wouldn't be available anymore.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
379-2	Steve Mertens, De Jong Marinelife	Netherlands	5/2/2018	Management requirements should apply to all extraction, regardless of end use.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing, are included in Section 5.4.3.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
379-3	Steve Mertens, De Jong Marinelife	Netherlands	5/2/2018	Population density and abundance increases since the implementation of the 2014 Rules.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
379-4	Steve Mertens, De Jong Marinelife	Netherlands	5/2/2018	Documents are thorough, comprehensive, and include the best available research.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
380-1	Milton Terazono	N/A	4/30/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
381-1	Kaipo Simpson	N/A	4/28/2018	Do not see a difference in collecting reef fish for the purpose of eating vs. selling into the aquarium trade.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing, are included in Section 5.4.3.
381-2	Kaipo Simpson	N/A	4/28/2018	EA supports this is a sustainable practice; follow science rather than emotion.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
382-1	Ulla Carmiencke	HI	4/30/2018	After seeing aquarium fisheries in other countries, the West HI Regional Fish Management Areas has the most closely monitored, studied, and regulated aquarium fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
382-2	Ulla Carmiencke	HI	4/30/2018	Only occasionally receive a shipping report of mortality in excess of 1%; fishery depends on live, healthy fish.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
382-3	Ulla Carmiencke	HI	4/30/2018	Difficult to understand why I'm out of work given the effort that DAR/DLNR has put into making the aquarium fishery a model one that provides jobs, contributes to a diversified economy and the state tax base.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Impacts to socioeconomics are discussed in Section 5.2 of both FEAs.
383-1	Tamashiromarket	N/A	4/30/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
384-1	Sean Terazono	N/A	5/1/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
384-2	Sean Terazono	N/A	5/1/2018	With proper regulations and maintenance, this fishery can continue to be a sustainable fishery for generations to come.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
385-1	Rajesh Ramoutar	FL	4/30/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
385-2	Rajesh Ramoutar	FL	4/30/2018	Collection for the aquarium trade in HI and FL are some of the most ecologically friendly and sustainable practices in the US for our industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
386-1	The Pet Depot Hawaii	HI	4/28/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
387-1	John Lim	N/A	4/29/2018	Approve of the tropical fish industry and believe it be sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
388-1	Mal Smith	N/A	5/2/2018	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
389-1	Timothy Ewing	HI	5/2/2018	Support the aquarium trade and the fisherman who support their families in this industry; fishery is sustainable and should be restored.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
390-1	Tommy Yannopoulos	FL	5/2/2018	Comprehensive documents that include all available scientific information; reasonable and responsible conclusions; If the decision to reopen the Hawaii fishery to aquarium fishers is a scientific, and not political, one, then these assessments certainly justify the reopening of the fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
390-2	Tommy Yannopoulos	FL	5/2/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
391-1	Bertha Basabe	HI	5/2/2018	Opponents testify that there are no fish; maybe they snorkel where the reefs are damaged from inexperienced snorkelers and over use.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Cumulative impacts from other sources, including tourism, are discussed in Section 5.4.3 of both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
391-2	Bertha Basabe	HI	5/2/2018	Lawsuit is extremely prejudicial towards our grow of aquarium fish collectors; no environmental impact statements needed for other ocean resource users and commercial fishing license holders.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
392-1	Lawrence Tirona	HI	5/2/2018	Agree and support the above scientific assessments.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
393-1	Dave & Judith Gentile	IL	5/2/2018	People who oppose the industry are, for the most part, ignorant of the ocean and what it really is.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
393-2	Dave & Judith Gentile	IL	5/2/2018	Tourist industry will stop at nothing to bring in revenue; have watched the ocean of Hawaii slowly die, thanks in part to the building up of Oahu as one of the top vacation destinations in the world.	Comment noted. The cumulative impact of tourism is discussed in Section 5.4.3 of both FEAs.
393-3	Dave & Judith Gentile	IL	5/2/2018	No way in the universe that such a small number of tropical fishermen and their families could have such a supposedly large effect on something the size of HI's ocean life; compare to the damage that any building on the land can do.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
394-1	Gary Beals	HI	5/2/2018	Shutting down the fishery is based on emotions rather than what is right.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
394-2	Gary Beals	HI	5/2/2018	Existing scientific evidence supports the fact that the reef stocks are well managed and sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
395-1	Scott Folsom	HI	5/3/2018	Aquarium industry aligns itself with science, as opposed to emotion, which overwhelmingly demonstrates the sustainability of this industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
395-2	Scott Folsom	HI	5/3/2018	Have vested interest in protecting the ocean and its resources.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
396-1	Bradley Bollinger	HI	5/3/2018	Support the aquarium trade and the fisherman who support their families in this industry; fishery is sustainable and should be restored.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
397-1	Kevin Brunsen	HI	5/2/2018	Support the aquarium industry if of equal status statewide and well regulated for quantity of fish taken.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
398-1	Michael Cross	TX	5/2/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
399-1	Arthur Reynolds	CA	5/2/2018	DEAs demonstrate that fish populations are stable/growing and not adversely affecting these or other fish populations in HI; conclusions are well-supported.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
399-2	Arthur Reynolds	CA	5/2/2018	No indirect or cumulative impacts that were not adequately considered.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
399-3	Arthur Reynolds	CA	5/2/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
400-1	Ray Kevis	HI	5/2/2018	Support the aquarium trade and the fisherman who support their families in this industry; fishery is sustainable and should be restored.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
401-1	Angela Trevithick	HI	5/2/2018	Support the aquarium trade and the fisherman who support their families in this industry.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
402-1	Jeffrey Slempp	OR	5/2/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
403-1	Chris Noonan	NJ	5/2/2018	Sustainability efforts are under way but more time is needed.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
404-1	Travis Brandwood	NC	5/2/2018	Comprehensive documents that include all available scientific information; reasonable and responsible conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
404-2	Travis Brandwood	NC	5/2/2018	DEAs demonstrate that fish populatiosn are stable/growing and not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
405-1	Mick Sowl	WA	5/2/2018	DEAs demonstrate that fish populatiosn are stable/growing and not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
405-2	Mick Sowl	WA	5/2/2018	Conclusions are well-supported; no indirect or cumulative impacts that were not adequately addressed.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
406-1	Jamie Kawauchi	HI	5/1/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
406-2	Jamie Kawauchi	HI	5/1/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
406-3	Jamie Kawauchi	HI	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, Puna, Hilo, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCDD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
406-4	Jamie Kawauchi	HI	5/1/2018	Stop all commercial harvesting of reef fish; soon we will not be protected if the reef fish are not there to keep our island reefs clean and healthy.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
406-5	Jamie Kawauchi	HI	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
407-1	Gregg Rosenberg	FL	5/2/2018	Approve of the Tropical Fish EA because the DLNR and NOAA have proven that the industry is sustainable; limits on size and quantities have proven to be very effective.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
408-1	Susan Burk	WA	5/2/2018	Please do not cave to the vocal few who put their own personal beliefs over scientific fact, particularly when the decision affects so many others, including those in the industry and responsible hobbyists.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
409-1	Cyrus Forell	WA	5/2/2018	Comprehensive documents that include all available scientific information; reasonable and responsible conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
409-2	Cyrus Forell	WA	5/2/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
409-3	Cyrus Forell	WA	5/2/2018	DEAs demonstrate that fish populatiosn are stable/growing and not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
410-1	Cynthia DeLillo	CT	5/2/2018	No scientific data to support the need for a ban; fisheries are sustainable and offer a livelihood to many in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
411-1	Phillip Kritzman	N/A	5/2/2018	Very concerned that the issuance of permits will result in the lost abundance, missing species, and diminished beauty.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
411-2	Phillip Kritzman	N/A	5/2/2018	Insist that the DLNR do a full assessment fo the trade's environmental, cultural, and ethical impacts.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
412-1	J. Kutcher	N/A	5/2/2018	Approve of the Tropical Fish EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
413-1	Edward Simon	HI	5/2/2018	Support the aquarium trade because it is sustainable and should be allowed to continue.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
414-1	Louella, De Jong Marinelif	Netherlands	5/3/2018	Great success in importing fish from the big island; best fishes in the world with high standards and excellent quality.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
414-2	Louella, De Jong Marinelifelife	Netherlands	5/3/2018	Management requirements should apply to all extraction, regardless of end use.	Comment noted. Cumulative impacts from other fisheries are discussed in Section 5.4.3 of both FEAs. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA.
414-3	Louella, De Jong Marinelifelife	Netherlands	5/3/2018	Population density and abundance increases since the implementation of the 2014 Rules.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
414-4	Louella, De Jong Marinelifelife	Netherlands	5/3/2018	Documents are thorough, comprehensive, and include the best available research.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
415-1	Lisa Andrews	HI	5/1/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Snowflake eels, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
415-2	Lisa Andrews	HI	5/1/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
415-3	Lisa Andrews	HI	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
415-4	Lisa Andrews	HI	5/1/2018	The fish/species population has declined and invasives have taken over (location examples given).	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Commercial aquarium collection includes collection of invasive species, including bluestripe snappers in the WHRFMA and Peacock Grouper in East Hawai'i (see Section 5.4.2.2 of the Hawai'i FEA) and Bluestripe Snapper and Peacock Grouper in Oahu (see Section 5.4.2.2 of the O'ahu FEA).
415-5	Lisa Andrews	HI	5/1/2018	Tourists say this is not the destination that is was for travelers.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
415-6	Lisa Andrews	HI	5/1/2018	Collectors come and strip clean our north and west side coasts of HI island; greed with no sensitivity to the ecosystem and how fragile it is.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
415-7	Lisa Andrews	HI	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
416-1	Liz C.	HI	5/1/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
416-2	Liz C.	HI	5/1/2018	Specific concerns about these species: Species abundance has been significantly reduced, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.</p>
416-3	Liz C.	HI	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
416-4	Liz C.	HI	5/1/2018	Caged, isolated creatures of any size are a travesty and unbalancing nature does not come out well for the human species.	Comment noted.
416-5	Liz C.	HI	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
417-1	Carol Ann Davis	HI	5/2/2018	Concerned about the following species: Yellow Tangs, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Snowflake eels, Bandit Angelfish, Dragon Eels, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
417-2	Carol Ann Davis	HI	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes economic value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
417-3	Carol Ann Davis	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala, Waikiki/Diamond Head, Hawaii Kai, North Shore, Leeward, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
417-4	Carol Ann Davis	HI	5/2/2018	Been swimming at Waiohai/Poipu Beach for 50 years - significantly less reef fish than there were before and the coral is almost gone; would like help making Poipu/Maiohai a fish preserve because Kauai is the only island with no fish preserve.	Comment noted. Commercial aquarium collection on the Island of Kauai is not included in either FEA.
417-5	Carol Ann Davis	HI	5/2/2018	Fish and coral in Borneo are in much better shape.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
417-6	Carol Ann Davis	HI	5/2/2018	Working on having people wear reef safe sun screen.	Comment noted.The FEAs analyze the impacts of commercial aquarium collection.
417-7	Carol Ann Davis	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
418-1	Cynthia Horton	HI	5/2/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
418-2	Cynthia Horton	HI	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
418-3	Cynthia Horton	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
418-4	Cynthia Horton	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
419-1	Wayne Harvey	ME	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
419-2	Wayne Harvey	ME	5/3/2018	Fish collectors of Hawaii have for decades demonstrated no harm to the fish population or it's industry; permit revocation has all the appearance of pre judicial restrictions on these local fish collectors.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
420-1	Sharon Willeford	HI	5/2/2018	Concerned about the following species: All species occurring only in Hawaii.	The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
420-2	Sharon Willeford	HI	5/2/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
420-3	Sharon Willeford	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Kaneohe/Windward, Lanikai/Kailua, North Shore, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLC, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
420-4	Sharon Willeford	HI	5/2/2018	Deeply concerned about the status of our reefs, especially in Kona; sections along the le Kahaluu area are dead; save what we have left for future generations.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawaii'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
421-1	M. Healani Sonoda-Pale	HI	5/2/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawaii'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawaii'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
421-2	M. Healani Sonoda-Pale	HI	5/2/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
421-3	M. Healani Sonoda-Pale	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka'u, Hilo, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Leeward, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
421-4	M. Healani Sonoda-Pale	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
421-5	M. Healani Sonoda-Pale	HI	5/2/2018	Reef Ohana is under assault from the aquarium trade, which is allowed to take marine life in limitless numbers without any regulation; are herbivores who are needed to keep our reef ecosystem healthy, clean, and vibrant.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
422-1	Lanny Sinkin	N/A	5/1/2018	Concerned about the following species: All Top 20 species taken on Oahu, All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
422-2	Lanny Sinkin	N/A	5/1/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
422-3	Lanny Sinkin	N/A	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
422-4	Lanny Sinkin	N/A	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
422-5	Lanny Sinkin	N/A	5/1/2018	"Requirement" that respondents present comments that include identification of specific impacts on specific species is an overreach; general comments cannot be barred.	Comment noted. All types of comments were accepted as part of the public comment period, there was no requirement for specific impacts to be addressed.
422-6	Lanny Sinkin	N/A	5/1/2018	The abysmal ignorance of the role these fish play in keeping the reef healthy is typical of DLNR; the supposed guardian is working for those who destroy.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
423-1	Sharon Torbert	HI	5/1/2018	Concerned about the following species: All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
423-2	Sharon Torbert	HI	5/1/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
423-3	Sharon Torbert	HI	5/1/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
423-4	Sharon Torbert	HI	5/1/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
423-5	Sharon Torbert	HI	5/1/2018	Valuable assets in HI that should not be sold off for profit, including our fish and reefs.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
424-1	Natalie Santiago	HI	5/2/2018	Concerned about the following species: Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii	The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
424-2	Natalie Santiago	HI	5/2/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
424-3	Natalie Santiago	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
424-4	Natalie Santiago	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
424-5	Natalie Santiago	HI	5/2/2018	Degradation and devastation of our oceans must come to an end; financial gain, greed, and ego can no longer be accepted as the norm.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
425-1	Cindi's Pet Center	FL	5/3/2018	Support the sustainable use of tropical fish in the aquarium industry; learn much from the aquarium hobbyist in the areas of breeding and aquaculture.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
425-2	Cindi's Pet Center	FL	5/3/2018	Urge to support the sustainable harvesting of tropical fish for the aquarium industry as defined by the NOAA and DLNR.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
426-1	Aquatic Jewels	FL	5/1/2018	Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
427-1	Jesse Tom	N/A	5/1/2018	HI tropical fish industry is sustainable and well managed, per DLNR studies over the past 14 years; reasons to this ban are unfounded.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
427-2	Jesse Tom	N/A	5/1/2018	Enjoy taking kids to ocean tide pools to catching things for fun; would hate to lose this right.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
428-1	Alexander Dillard	FL	5/2/2018	Accept the EA and reject the ban on HI fishing; industry is sustainable and the state's management efforts are working.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
429-1	Seth Temko	IL	5/3/2018	Comprehensive documents that include all available scientific information on the effects of the HI aquarium fishery on the environment; resonable and responsible conclusions that are well-supported.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
430-1	Kacie Terazono	N/A	5/4/2018	Support the tropical fish EA because DLNR has proven that this industry is sustainable.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
431-1	Tyron Terazono	HI	5/4/2018	Have been fishing for the past 30 years off west coast of HI, the fact is that the EA has proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
432-1	Sinclair Tirona	CA	5/3/2018	Scientific opinion supports the sustainability of the HI fishery; comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
432-2	Sinclair Tirona	CA	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
433-1	Peter Yasuda	HI	5/3/2018	As a livestock manager for 25 years for marine aquarium fish, have personally observed how marine specimens from HI consistently show the highest quality, zero wastage, and top adaptability to aquarium conditions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
433-2	Peter Yasuda	HI	5/3/2018	Strong support the re-issuance of fishing licenses to collectors within the WHRMA.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
434-1	Shyanne Hirata-Freitas	HI	5/3/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
434-2	Shyanne Hirata-Freitas	HI	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
434-3	Shyanne Hirata-Freitas	HI	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
435-1	Arnold Fujioka	HI	5/4/2018	Aquarium fish industry is not harmful to the ocean environment; as a longtime diver, I have seen tropical fish migrate to remote areas where they cannot be caught.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
436-1	Chelsey Faavesi	HI	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
436-2	Chelsey Faavesi	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
436-3	Chelsey Faavesi	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
437-1	Jan Porter	VA	5/3/2018	Allow collecting of fish again; there is no evidence of any ill effects on the environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
438-1	Adam Dugger	VA	5/3/2018	This ban has far reaching impacts both to business owners, employees, and hobbyists and enthusiasts around the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
438-2	Adam Dugger	VA	5/3/2018	Please make sure that science rather than emotion and political agendas are the basis for your decisions regarding the HI fish trade.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
438-3	Adam Dugger	VA	5/3/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
438-4	Adam Dugger	VA	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
438-5	Adam Dugger	VA	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
439-1	Shansea Fujuhara	HI	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
439-2	Shansea Fujuhara	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
439-3	Shansea Fujuhara	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
440-1	Sharlene Decoito	HI	5/3/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
440-2	Sharlene Decoito	HI	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
440-3	Sharlene Decoito	HI	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
441-1	Alex Fauth	AZ	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
441-2	Alex Fauth	AZ	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
441-3	Alex Fauth	AZ	5/3/2018	Conclusions are well-supported; no indirect or cumulative impacts that were not adequately addressed.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
442-1	Dan Harmony	AZ	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
442-2	Dan Harmony	AZ	5/3/2018	Conclusions are well-supported; no indirect or cumulative impacts that were not adequately addressed.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
443-1	Margaux Nelson	HI	5/2/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
443-2	Margaux Nelson	HI	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
443-3	Margaux Nelson	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
443-4	Margaux Nelson	HI	5/2/2018	Reefs are already dying due to climate change, can't loose our fish to the aquarium trade.	Comment noted. The cumulative impacts of global warming and coral bleaching are discussed in Section 5.4.3 of both FEAs.
443-5	Margaux Nelson	HI	5/2/2018	Fish don't belong in tanks; disappointment in the world everyday.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
443-6	Margaux Nelson	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
444-1	Mike Keating	HI	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
444-2	Mike Keating	HI	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
444-3	Mike Keating	HI	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCDD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
444-4	Mike Keating	HI	5/3/2018	Greed is killing the planet.	Comment noted.
444-5	Mike Keating	HI	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
445-1	Charlotte Beall	HI	5/2/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
445-2	Charlotte Beall	HI	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
445-3	Charlotte Beall	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
445-4	Charlotte Beall	HI	5/2/2018	Over last thirty years, have seen the amount of reef fish diminish in the Poipu Beach area of Kauai; money has become more important than the preservation of our environment.	Comment noted. Commercial aquarium collection on the Island of Kauai is not included in either FEA.
445-5	Charlotte Beall	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
446-1	Susan Collins	HI	5/2/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
446-2	Susan Collins	HI	5/2/2018	Specific concerns about these species: Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
446-3	Susan Collins	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, North Kohala, Hilo, Hamakua, Waikiki/Diamond Head, North Shore.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
446-4	Susan Collins	HI	5/2/2018	Have noticed a sharp decline in the reef cleaners and adult fish to provide fish for future generations; HI depends on these organisms to keep our oceans clean and beautiful.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
446-5	Susan Collins	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
447-1	Francine Roby	HI	5/2/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
447-2	Francine Roby	HI	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
447-3	Francine Roby	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
447-4	Francine Roby	HI	5/2/2018	Populations and diversity of fish have diminished over last three years since moving to HI/Maui.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
447-5	Francine Roby	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
448-1	Joseph Culbertson	HI	5/2/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
448-2	Joseph Culbertson	HI	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
448-3	Joseph Culbertson	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, Puna, South Kohala, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
448-4	Joseph Culbertson	HI	5/2/2018	Marine bandits need to be stopped now.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
448-5	Joseph Culbertson	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
449-1	Jeanette Bonilla	HI	5/2/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
449-2	Jeanette Bonilla	HI	5/2/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
449-3	Jeanette Bonilla	HI	5/2/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
449-4	Jeanette Bonilla	HI	5/2/2018	The natural beauty of our reefs need to be conserved for future generations to enjoy.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
449-5	Jeanette Bonilla	HI	5/2/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
450-1	Ian Chun	HI	5/3/2018	Support the aquarium trade and fishermen who support their families in this industry; true science, not conjecture and emotion, should be used in determining the long term sustainability of the fishery.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
451-1	William Derasin	HI	5/4/2018	Not aware of any additional scientific information that these document omit or do not fully consider; scientific opinion certainly supports the sustainability of the HI fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
452-1	Phil Kwiatkowski	HI	5/3/2018	Aquarium collectors have come up with some very important innovations in collecting techniques, techniques to improve survival rates of shipped fish and self imposed restrictions on where to fish and what to take.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
452-2	Phil Kwiatkowski	HI	5/3/2018	Studies have shown that when collecting is done responsibly, there is no adverse effect to the ecology of the reef or fish populations over time.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
453-1	Theodore Engels	CT	5/3/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
454-1	Yvonne Ke	HI	5/3/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
454-2	Yvonne Ke	HI	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
454-3	Yvonne Ke	HI	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
455-1	Robert Shain	MA	5/4/2018	Scientific opinion supports the sustainability of the HI fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
456-1	Scott Groseclose	SC	5/4/2018	Our business relies on responsible fish and coral collection from marine environments around the world; hope HI wil reconsider opening the fisheries.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
457-1	John Oosthuizen	FL	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
457-2	John Oosthuizen	FL	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
457-3	John Oosthuizen	FL	5/3/2018	Conclusions are well-supported; no indirect or cumulative impacts that were not adequately addressed.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
458-1	Shannon Fujihara	HI	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
458-2	Shannon Fujihara	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
458-3	Shannon Fujihara	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
459-1	Karen Oosthuizen	FL	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
459-2	Karen Oosthuizen	FL	5/3/2018	Conclusions are well-supported; no indirect or cumulative impacts that were not adequately addressed.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
459-3	Karen Oosthuizen	FL	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
460-1	Jesse Baker	FL	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
461-1	Mikolelehua Barrios	HI	5/3/2018	There is an extent how detailed you need and in depth you need to be until the point where you are wasting resources and endangering the livelihoods of the people who depend on fishing.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
461-2	Mikolelehua Barrios	HI	5/3/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
461-3	Mikolelehua Barrios	HI	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
462-1	Elena Mello-Waiwaiole	HI	5/3/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
462-2	Elena Mello-Waiwaiole	HI	5/3/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
462-3	Elena Mello-Waiwai	HI	5/3/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
463-1	Joshua Schreiber	WI	5/4/2018	Unsupported arguments and dubious natures of some of the organizations pushing to keep this ban in place should be enough to show that this ban is absurd and ridiculous.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
463-2	Joshua Schreiber	WI	5/4/2018	Pray that these elected officials look at the raw data and peer reviewed scientific papers over the ramblings of PETA knockoff groups.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
464-1	Luciano Perino	HI	5/3/2018	Supprt the DEA; Dept. of Aquatic Resources current regulations, with regards to ornamental fish collection within West HI Regional Fisheries Management Area, includes comprehensive conservation measures aimed at safeguarding biodiversity and population sustainability showing less than 5% take.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
464-2	Luciano Perino	HI	5/3/2018	Several hundred of HI's marine animals are excluded since 2014 by the enactment of a White List comprised of forty approved species for the aquarium trade.	Comment noted. White List species are discussed in Section 4.4.1 of the Hawai'i FEA.
464-3	Luciano Perino	HI	5/3/2018	Support the enhanced protection of Acanthurus achilles tang by enacting a bag limit of five achilles per day for all user group/fisheries.	An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA.
465-1	Misael Hernandez	N/A	5/3/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
466-1	Leslie Hutchinson	HI	5/4/2018	The assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters.	Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.
466-2	Leslie Hutchinson	HI	5/4/2018	EAs do not include any new science or input from other stakeholders who care about preservation.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Section 6.0 in the FEAs outlines the organizations, agencies, and individuals contacted, as well as the distribution of the draft EAs. In addition, the FEAs were updated in response to public comments.
466-3	Leslie Hutchinson	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Environmental and cultural impacts are discussed in Section 5.0 of both FEAs.
466-4	Leslie Hutchinson	HI	5/4/2018	Request EIS that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts and maintains current moratorium until complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
467-1	Richard Dangerman, De Jong Marinelif	Netherlands	5/4/2018	Very important to be able to continue importing from HI; most valued fishes by our customers; wil be a big loss for the complete trade in Europe.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
467-2	Richard Dangerman, De Jong Marinelif	Netherlands	5/4/2018	West HI Island Fishery is one of the best managed near shore fisheries in the world and used as a model around the globe.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
467-3	Richard Dangerman, De Jong Marinelif	Netherlands	5/4/2018	Aquarium trade has work with DLNR since the 1990s to insure that fishery can grow, evolve, and maintain its sustainability; management requirements should apply to all who extract the fish.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
467-4	Richard Dangerman, De Jong Marinelif	Netherlands	5/4/2018	Population and denisty estimates have increased since the implementation of the 2014 rules.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
467-5	Richard Dangerman, De Jong Marinelif	Netherlands	5/4/2018	Documents are thorough, comprehensive, and include the best available research.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
468-1	Tony Nahacky	HI	5/3/2018	Achille Tangs have experienced poor recruitment over the last decade in most areas of WHRFMA; are targeted by recreational food fisher, aquarium fishers, and commercial food fishers; need help of others to reverse current trends, since aquarium fishers are following bag limits and limiting fishing areas/times; support a more conservative limit of 5 Achilles per day per fisher for all fishers.	An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.
468-2	Tony Nahacky	HI	5/3/2018	Analysis of the data in the DEA is more than adequate; DAR (WHAP) data is the best available data to utilize given the scope and length of the monitoring; the 5%-25% cited in the DEA was referenced from a study of sustainable aquarium fish take but actual take in HI County is well below 10% (At SPC, a maximum of 10% take of total stock of aquarium fish was utilized for evaluations).	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.
468-3	Tony Nahacky	HI	5/3/2018	WHAP data is the best data to utilize for the WHRFMA, although it not applicable outside of the WHRFMA to prove sustainability in a particular area.	Comment noted. Both WHAP and CREP data sets are presented and analyzed in the Hawai'i FEA. However, due to the larger spatial coverage and greater range of depths surveyed by the CREP, CREP data were considered to be a better estimator of island-wide fish populations, and therefore serve as the primary basis for the impact analysis found in Section 5.
468-4	Tony Nahacky	HI	5/3/2018	DLNR/DAR measures are already in place for monitoring and to assure a sustainable fishery in the WHRFMA and they are working efficiently.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
468-5	Tony Nahacky	HI	5/3/2018	After 51 years, now unable to earn a living despite the data showing a sustainable fishery; please restore the permits as soon as possible; will provide detailed information if requested.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
469-1	Barrier Reef	N/A	5/2/2018	Approve of the EA because the DLNR and NOAA have proven that the industry is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
470-1	Julie Klaz	HI	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
470-2	Julie Klaz	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
470-3	Julie Klaz	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
471-1	Mary Watkins	CA	5/4/2018	The cattle boat dive shops damage the environment to a far greater extent and that industry should be curtailed.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts, including from tourism, are discussed in Section 5.4.3 of both FEAs.
471-2	Mary Watkins	CA	5/4/2018	Can personally attest to the care with which the aquarium fishermen interact with the environment how concerned their industry as a whole is environmentally responsible.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
471-3	Mary Watkins	CA	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
471-4	Mary Watkins	CA	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
472-1	Kim Koch	HI	5/4/2018	The West Hawaii Regional Fishery Management Area has been studied and managed for decades and the EA proves what fishermen and scientists have claimed for years, its sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
472-2	Kim Koch	HI	5/4/2018	Fully support opening the fishery and encourage the State to review this on a 5 year basis, but would suggest amending HEPA law so this fishery and others do not have it wrongfully applied in the future.	Comment noted. The applicant supports full enforcement of all applicable regulations.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
473-1	William Trufant	AL	5/4/2018	Scares me to see that a fishery as well regulated and managed as the waters around HI would even have these issues; shows how much influence that well meaning but uninformed people can have.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
473-2	William Trufant	AL	5/4/2018	Fish from HI are a mainstay in our hobby.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
473-3	William Trufant	AL	5/4/2018	Has been proven that these fish are sustainably taken from the wild and provide a source of income for many native Hawaiians.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
474-1	Kaleo Mello	HI	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
474-2	Kaleo Mello	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
474-3	Kaleo Mello	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
475-1	Georgette Valliere	ME	5/4/2018	Support the aquarium trade and the fishermen who support their families in this industry; industry is sustainable and should be restored.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
476-1	Chris Handegard	WA	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
476-2	Chris Handegard	WA	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
476-3	Chris Handegard	WA	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
477-1	Shavon Mello-Waiwaiole	HI	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
477-2	Shavon Mello-Waiwaiole	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
477-3	Shavon Mello-waiwaiole	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
478-1	Robert Valliere	ME	5/4/2018	Support the aquarium trade and the fishermen who support their families in this industry; industry is sustainable and should be restored.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
479-1	Hayden Bishop	HI	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
479-2	Hayden Bishop	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
479-3	Hayden Bishop	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
480-1	Leah Mello-waiwaiole	HI	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
480-2	Leah Mello-waiwaiole	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
480-3	Leah Mello-waiwaiole	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
481-1	Kapono Kahele-Bishop	HI	5/4/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
481-2	Kapono Kahele-Bishop	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
481-3	Kapono Kahele-Bishop	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
482-1	David Krystal	HI	5/4/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
483-1	Akemi Krystal	HI	5/4/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
483-2	Akemi Krystal	HI	5/4/2018	Amount of data is impressive, and conclusions are well-supported; no indirect or cumulative impacts that were not adequately considered.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
484-1	Vince Tirona	CA	5/5/2018	Fully support the aquarium fisherman; it's a sustainable industry and these fisherman work hard for their ohana.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
485-1	James Higgins	FL	5/5/2018	Scientific opinion certain supports the sustainability of the HI fishery; thorough review of the environmental assesments.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
486-1	Susan Basabe	WA	5/5/2018	As a skeptic and environmental protection advocate, I have been impressed with the aquarium trade divers who joined together to self regulate in order to insure that the harvest doesn't negatively effect the sustainability of the many species; found them to be honest about the trade and believe the industry is sustainable based on my observations and their accounts.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
487-1	Glenn Kosaki	HI	5/5/2018	An injustice to prevent them from providing an honest living for their families.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
487-2	Glenn Kosaki	HI	5/5/2018	May be difficult for some to accept the peer-reviewed science since it does not reinforce their position and therefore must be flawed; science establishes the fishery as sustainable and it shouldbe rightfully restored.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
488-1	Dominick Siconolfi	NJ	5/5/2018	Fully support and agree with the DEA findings; oppose the HI fishing ban.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
489-1	Creighton Liu	HI	5/5/2018	Methods used in HI are environmentally friendly and allow our ocean species to remain sustainable; there is much misinformation about the industry and the impact to the environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
489-2	Creighton Liu	HI	5/5/2018	Support the aquarium trade and fishermen who support their families in this industry.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
490-1	Bill Knight	ID	5/5/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
490-2	Bill Knight	ID	5/5/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
491-1	Nancy Sweatt	HI	5/5/2018	Aware of the personal persecution by these particular environmentalists; no evidence to support them and in the face of years of records and studies showing this fishery to be sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
491-2	Nancy Sweatt	HI	5/5/2018	Divers have no way of making a living and supporting their homes and families; however, divers in Oahu are allowed to dive, although they have no evidence to support them like the divers on the Island of HI do with the \$200,000 EIS that supports their sustainability.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
491-3	Nancy Sweatt	HI	5/5/2018	Are good people who care about the reefs, unlike the snorkeling companies that I have seen trample them.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The impacts of tourism are considered in Section 5.4.3.4 of the FEAs.
492-1	Christian Palaco	FL	5/6/2018	Pass the EA; tropical fish industry in HI has proven to be sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
493-1	Chris Kose	AZ	5/6/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
493-2	Chris Kose	AZ	5/6/2018	Scientific opinion supports the sustainability of the HI fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
494-1	Emi Holton	WA	5/6/2018	Have personally observed how careful of fish, coral and the environment and how law-abiding to regulations and rules the tropical fish collectors have been and yet they've been discriminated against and are no longer allowed to fish.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
494-2	Emi Holton	WA	5/6/2018	There are charter boats filled with careless people who are contaminating the water with their suntan oils, garbage thrown overboard, etc. and yet they are allowed to continue.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The impacts of tourism are considered in Section 5.4.3.4 of the FEAs.
494-3	Emi Holton	WA	5/6/2018	Years of scientific studies show the tropical fish collectors have not caused a decrease in the fish populations.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
495-1	Tara Sweatt	HI	5/6/2018	Give the professional fish divers more credit; the people damaging reefs/fish are the tourists.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The impacts of tourism are considered in Section 5.4.3.4 of the FEAs.
495-2	Tara Sweatt	HI	5/6/2018	If anyone feels as if they are depleting fish or causing damage, then have an education certificate class given by the State for them to take instead of taking more jobs away.	Comment noted. Impacts to reefs and fish populations are discussed in Section 5.4 of both FEAs
496-1	David Foley	HI	5/6/2018	Not aware of any additional scientific information that these document omit or do not fully consider; scientific opinion certainly supports the sustainability of the HI fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
496-2	David Foley	HI	5/6/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
497-1	Robert Homer	FL	5/6/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
498-1	Bonnie B. McMullen	HI	5/5/2018	People in local government continue to put commercial interests ahead of the health of the environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
498-2	Bonnie B. McMullen	HI	5/5/2018	Alarming and shocking the rate at which species have disappeared; no longer see green sea turtles.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Collection of green sea turtles is not allowed under a commercial aquarium permit.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Cumulative impacts from other sources, including climate change, are discussed in Section 4.5.3 of both FEAs.</p>
499-1	Jason Carmichael	N/A	5/4/2018	Tropical Fish EA has proven that the tropical fish industry is sustainable; let's be guided by science and statistics, not emotions.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
500-1	Joshua Telles	N/A	5/4/2018	Accept the EA study regarding the sustainability of collection activities and reject the ban on HI fishing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
501-1	Roger Ma	CA	5/4/2018	Ask that you accept the EA, as well as reject the ban on HI fishing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
502-1	Private Oceans	FL	5/4/2018	Urge you to not allow the international aquarium industry to continue exploiting living creatures for their profit.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
502-2	Private Oceans	FL	5/4/2018	From first hand experience, aquarium wholesalers do not waste any resources pretending to care for fish or coral they receive; tanks and fish in bad condition at some wholesalers (examples given and video attached).	Comment noted. Because mortality post-collection is not anticipated to change from current conditions, it is not anticipated that this factor will alter the estimated collection numbers.
502-3	Private Oceans	FL	5/4/2018	Speaking on behalf of a business in the aquarium industry, we implore you to make a responsible decision on behalf of the fish and corals that have zero control over their own destiny.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
503-1	Ms. Cris Yamabe	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders who care about preservation.	<p>Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>The FEAs have been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs.</p>
503-2	Ms. Cris Yamabe	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Cultural impacts are discussed in Section 5.3 of both FEAs.</p>

Comment No.	Commentor	State/Location	Date Received	Comment	Response
503-3	Ms. Cris Yamabe	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
504-1	Mike Jasmin	Canada	5/3/2018	As a marine fish hobbyist, accept the EA and reject the ban on HI fishing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
505-1	Aude Chenet	New Caledonia	5/3/2018	The robust rules applied through the HI administration, and the thinking deployed to make sure that social, economic, and cultural factors are considered to reach an appropriate decision on consideration of aquarium fishing activities impressed me.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
505-2	Aude Chenet	New Caledonia	5/3/2018	Results are a clear demonstration of the fact that aquarium fishing in HI is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
505-3	Aude Chenet	New Caledonia	5/3/2018	The no action scenario, with no more permits issued, seemed in that sense very frightening, due to the absence of enhanced potential for fish replenishment vs. the loss in economic revenue as well as the precariousness related from all aquarium fishermen.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
505-4	Aude Chenet	New Caledonia	5/3/2018	One aspect not considered in DEA: benefit from having aquarium fishermen who contribute to research and scientific knowledge about marine life and who work with the highest quality standards.	Comment noted. The indirect socioeconomic impact of commercial aquarium collection, and the funding it provides to monitoring reef fishes and their habitat, is described in Section 5.2.2 of both FEAs.
506-1	Aquarium Fish	New Caledonia	5/3/2018	Our business is artisanal and has limited impact since we're targeting species that are low in food chain and have very high population dynamics; observed large schools of yellow tang and other species when diving with aquarium fish collectors in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
506-2	Aquarium Fish	New Caledonia	5/3/2018	Quite a gap between what is being said over the news and what is going on underwater; people being overly emotional over this fishery, which in itself is highly regulated and sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
506-3	Aquarium Fish	New Caledonia	5/3/2018	Permits should be restored so that aquarium collectors can sustain their livelihoods and incomes; have immense knowledge and are fully concerned about the sustainability of their activity.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
507-1	Nicole Brodie	HI	5/2/2018	We are the stewards of our resources and must not allow our reefs and oceans to be mined for profit and vanity.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
508-1	Mrs. Gloria Pondela	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
508-2	Mrs. Gloria Pondela	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
508-3	Mrs. Gloria Pondela	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
509-1	Ms. Monica Takiguchi	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
509-2	Ms. Monica Takiguchi	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
509-3	Ms. Monica Takiguchi	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
510-1	Ms. Kym Harris	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
510-2	Ms. Kym Harris	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
510-3	Ms. Kym Harris	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
511-1	Ms. Lynn Wilson	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
511-2	Ms. Lynn Wilson	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
511-3	Ms. Lynn Wilson	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
512-1	Ms. Judith Mick	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
513-2	Ms. Judith Mick	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
513-3	Ms. Judith Mick	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
514-1	Kathy Shimata	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
514-2	Kathy Shimata	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
514-3	Kathy Shimata	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
515-1	Ms. Rose Bartley	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
515-2	Ms. Rose Bartley	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
515-3	Ms. Rose Bartley	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
516-1	Ms. Valerie Weiss	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
516-2	Ms. Valerie Weiss	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
516-3	Ms. Valerie Weiss	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
517-1	Mr. Eli Sharp	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
517-2	Mr. Eli Sharp	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
517-3	Mr. Eli Sharp	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
518-1	Miss Alexandria Siwecki	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
518-2	Miss Alexandria Siwecki	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
518-3	Miss Alexandria Siwecki	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
519-1	Mr. David Erickson	CA	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
519-2	Mr. David Erickson	CA	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
519-3	Mr. David Erickson	CA	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
520-1	Ms. Kendall Culler	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
520-2	Ms. Kendall Culler	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
520-3	Ms. Kendall Culler	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
521-1	Mrs. Terri Manabe	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
521-2	Mrs. Terri Manabe	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
521-3	Mrs. Terri Manabe	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
522-1	Ms. Rose Millard	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
522-2	Ms. Rose Millard	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
522-3	Ms. Rose Millard	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
523-1	Mr. Jonathan Boyne	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/Location	Date Received	Comment	Response
523-2	Mr. Jonathan Boyne	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
523-3	Mr. Jonathan Boyne	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
524-1	Mr. Michael Carver	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
524-2	Mr. Michael Carver	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
524-3	Mr. Michael Carver	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
525-1	Mr. M. Moran	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
525-2	Mr. M. Moran	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
525-3	Mr. M. Moran	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
526-1	Mr. Sindhu Rumpler	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
526-2	Mr. Sindhu Rumpler	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
526-3	Mr. Sindhu Rumpler	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
527-1	Gerry Lan	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
527-2	Gerry Lan	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
527-3	Gerry Lan	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
528-1	Mr. Michael Kaster	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
528-2	Mr. Michael Kaster	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
528-3	Mr. Michael Kaster	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
529-1	Ms. Beach Weston	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
529-2	Ms. Beach Weston	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
529-3	Ms. Beach Weston	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
530-1	Mr. Jeffery Grace	LA	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
530-2	Mr. Jeffery Grace	LA	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
530-3	Mr. Jeffery Grace	LA	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
531-1	Ms. Alexandra Gibson	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
531-2	Ms. Alexandra Gibson	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
531-3	Ms. Alexandra Gibson	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
532-1	Mrs. Tara Shaw	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
532-2	Mrs. Tara Shaw	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
532-3	Mrs. Tara Shaw	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
533-1	Miss Jennifer Watabayashi	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
533-2	Miss Jennifer Watabayashi	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
533-3	Miss Jennifer Watabayashi	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
534-1	Ms. Ingrid Tillman	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
534-2	Ms. Ingrid Tillman	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
534-3	Ms. Ingrid Tillman	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
535-1	Ms. Destry Segawa	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
535-2	Ms. Destry Segawa	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
535-3	Ms. Destry Segawa	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
536-1	Ms. Carmina Costello	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
536-2	Ms. Carmina Costello	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
536-3	Ms. Carmina Costello	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
537-1	Ms. Erin Fitzgerald-Case	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
537-2	Ms. Erin Fitzgerald-Case	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
537-3	Ms. Erin Fitzgerald-Case	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
538-1	Mrs. Judith Kapohakimohewa	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
538-2	Mrs. Judith Kapohakimohewa	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
538-3	Mrs. Judith Kapohakimohewa	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
539-1	Ms. Stephanie McLaughlin	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
539-2	Ms. Stephanie McLaughlin	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
539-3	Ms. Stephanie McLaughlin	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
540-1	Ms. Michele Hondo	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
540-2	Ms. Michele Hondo	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
540-3	Ms. Michele Hondo	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
541-1	Mrs. Alison Asejo	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
541-2	Mrs. Alison Asejo	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
541-3	Mrs. Alison Asejo	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
542-1	Mr. Joshua Wright	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
542-2	Mr. Joshua Wright	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
542-3	Mr. Joshua Wright	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
543-1	Mr. Rawil Ismail	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
543-2	Mr. Rawil Ismail	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
543-3	Mr. Rawil Ismail	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
544-1	Miss Katharine Low	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
544-2	Miss Katharine Low	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
544-3	Miss Katharine Low	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
545-1	Ms. Juli Schwartzsmith	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
545-2	Ms. Juli Schwartzsmith	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
545-3	Ms. Juli Schwartzsmith	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
546-1	Ms. Pat Matsueda	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
546-2	Ms. Pat Matsueda	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
546-3	Ms. Pat Matsueda	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
547-1	Ms. Christine Bolis	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
547-2	Ms. Christine Bolis	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
547-3	Ms. Christine Bolis	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
548-1	Ms. Stella Tavares	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
548-2	Ms. Stella Tavares	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
548-3	Ms. Stella Tavares	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
549-1	Ms. Suyin Phillips	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
549-2	Ms. Suyin Phillips	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
549-3	Ms. Suyin Phillips	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
550-1	Mrs. K G	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
550-2	Mrs. K G	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
550-3	Mrs. K G	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
551-1	Ms. Terri Lo	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
551-2	Ms. Terri Lo	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
551-3	Ms. Terri Lo	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
552-1	Ms. Diane Kawamoto	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
552-2	Ms. Diane Kawamoto	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
552-3	Ms. Diane Kawamoto	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
553-1	Miss H. Asumen	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
553-2	Miss H. Asumen	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
553-3	Miss H. Asumen	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
554-1	Mrs. Annette Burvick	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
554-2	Mrs. Annette Burvick	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
554-3	Mrs. Annette Burvick	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
555-1	Mrs. Gail Stanley	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
555-2	Mrs. Gail Stanley	HI	5/5/2018	Our ocean and living creatures are important not only to our existence on earth, but are important for the coming generations to enjoy.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
555-3	Mrs. Gail Stanley	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
555-4	Mrs. Gail Stanley	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
556-1	Ms. Geneva Jackson	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
556-2	Ms. Geneva Jackson	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
556-3	Ms. Geneva Jackson	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
557-1	Ms. Heidi Holloran	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
557-2	Ms. Heidi Holloran	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
557-3	Ms. Heidi Holloran	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
558-1	Mrs. Loredana Raimonda	Italy	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
558-2	Mrs. Loredana Raimonda	Italy	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
558-3	Mrs. Loredana Raimonda	Italy	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
559-1	Ms. Anita Wintner	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
559-2	Ms. Anita Wintner	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
559-3	Ms. Anita Wintner	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
560-1	Miss Natalie Parra	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
560-2	Miss Natalie Parra	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
560-3	Miss Natalie Parra	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
561-1	Mrs. Jessica Woo	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
561-2	Mrs. Jessica Woo	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
561-3	Mrs. Jessica Woo	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
562-1	Ms. Shannon Murphy	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
562-2	Ms. Shannon Murphy	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
562-3	Ms. Shannon Murphy	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
563-1	Ms. Lori Davidson	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
563-2	Ms. Lori Davidson	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
563-3	Ms. Lori Davidson	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
564-1	Mrs. Maria Endler	HI	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
564-2	Mrs. Maria Endler	HI	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
564-3	Mrs. Maria Endler	HI	5/6/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
565-1	Ms. Kimi Abbottjackson	HI	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
565-2	Ms. Kimi Abbottjackson	HI	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
565-3	Ms. Kimi Abbottjackson	HI	5/6/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
566-1	Ms. Terry Akana	HI	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
566-2	Ms. Terry Akana	HI	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
566-3	Ms. Terry Akana	HI	5/6/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
567-1	Ms. Arianne Patterson	HI	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/Location	Date Received	Comment	Response
567-2	Ms. Arianne Patterson	HI	5/6/2018	Personally witnessed the sharp decline in local reef fish in last five years; first target the more beautiful fish; abundance of certain fish populations has plummeted, as well as the general biodiversity and the overall reef.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
567-3	Ms. Arianne Patterson	HI	5/6/2018	Tourists often complain of lack of diversity and interesting fish; in time, the oceans will no longer hold the attraction for the tourist industry in HI.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
567-4	Ms. Arianne Patterson	HI	5/6/2018	Reefs systems being attacked by loss of fish from over zealous aquarium collection, commercial fishing, recreational fishing, water quality deterioration, coral trampling, coral bleaching and death, and more.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing and climate change, are discussed in Section 5.4.3 of both FEAs.
567-5	Ms. Arianne Patterson	HI	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
567-6	Ms. Arianne Patterson	HI	5/6/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
568-1	Mrs. Pam Elders	HI	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
568-2	Mrs. Pam Elders	HI	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
568-3	Mrs. Pam Elders	HI	5/6/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
569-1	Mrs. Ann Wilson	HI	5/6/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
569-2	Mrs. Ann Wilson	HI	5/6/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
569-3	Mrs. Ann Wilson	HI	5/6/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
570-1	Ms. Mary Markl	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
570-2	Ms. Mary Markl	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
570-3	Ms. Mary Markl	HI	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
571-1	Miss Claire Loridan	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
571-2	Miss Claire Loridan	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
571-3	Miss Claire Loridan	HI	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
572-1	Dr. V. Anderson	HI	5/5/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
572-2	Dr. V. Anderson	HI	5/5/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
572-3	Dr. V. Anderson	HI	5/5/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
573-1	Tomohisa Nishioka, Kamihata Fish Ind.	Tokyo	5/5/2018	Support the aquarium trade in HI and hoping that permits should be restored.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
574-1	Chris Lam	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
575-1	Ann R. Masaki	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
576-1	Charly Micua	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
577-1	Brent Micua	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
578-1	Charles Harvey	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
579-1	Tyler Alcoran	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
580-1	Syncler Rabang	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
581-1	Sara Westbrook	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
582-1	Tiana Alcoran	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
583-1	Monica Rabang	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
584-1	Esteban Rabang	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
585-1	Alicia McCraw	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
586-1	Mitch Miller	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
587-1	David Lum	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
588-1	Bryson Rabang	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
589-1	Moira Rabang	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
590-1	Brent Oshin	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
591-1	Jerry Anchuta Jr.	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
592-1	Eric Hayes	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
593-1	Raymond J. Pruana	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
594-1	Michael K. Shimotsh	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
595-1	Jingo Saavedry	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
596-1	Glenn Meurata	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
597-1	David Miller	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
598-1	Lyndell Schneider	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
599-1	Kyle Yoshimoto	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
600-1	Mel Mau	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
601-1	Oe Sim Fukuda	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
602-1	Lori Matsumura	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
603-1	Lea Matsumura	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
604-1	Tia Matsumura	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
605-1	Aileen Kajiwara	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
606-1	Glenn Fukuda	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
607-1	Sun Chong	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
608-1	Brian Chong	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
609-1	Lisa Chong	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
610-1	Jus Chong	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
611-1	Christine Chong	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
612-1	Giovanni Sclarandis	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
613-1	Stanford Wong	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
614-1	Bronson Beyer	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
615-1	Kevin Sokuda	HI	N/A	EA shows that the industry is sustainable and regulated; State agency and NOAA have concluded that there is no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
616-1	G. A. Taylor Fernley	PA	5/3/2018	Request in strongest possible terms to pass the EA; extensive research by the tropical fish industry in HI has proven it to be sustainable through both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
616-2	G. A. Taylor Fernley	PA	5/3/2018	This action is warranted, justified, and in the best interests of all.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
617-1	Colette Wabnitz	Canada	5/5/2018	Scientific monitoring, enforced network of nine no-aquarium collection FRAs, comprehensive management, and multiple scientific peer reviewed publications all objectively demonstrate the trade's sustainability; HI fishery is undeniably one of the most well-managed and regulated aquarium fisheries in the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
617-2	Colette Wabnitz	Canada	5/5/2018	Recommendation: Fish populations can suffer high variability in recruitment rates, such as the low recruitment that the Achilles tang have suffered for a number of years; removal of larger adults by the food fisheries contributes to diminished replenishment of populations; back a five Achilles bag limit for all fishers in the West HI Regional Fisheries Management Area.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.
617-3	Colette Wabnitz	Canada	5/5/2018	Recommendation: Suggest considering a conservative maximum take of 10% - a reference point commonly used in assessment for aquarium fisheries in the South Pacific.	Comment noted. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
617-4	Colette Wabnitz	Canada	5/5/2018	Recommendation: Data from DAR across the WHRFMA should not be used to inform management measures elsewhere, where differences in habitat, environmental conditions and regulations will influence populations patterns and trends, yielding marked different results.	Comment noted. Both WHAP and CREP data sets are presented and analyzed in the Hawai'i FEA. However, due to the larger spatial coverage and greater range of depths surveyed by the CREP, CREP data were considered to be a better estimator of island-wide fish populations, and therefore serve as the primary basis for the impact analysis found in Section 5.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
618-1	Caely Shiraki	N/A	5/6/2018	Industry has been well managed for at least 20 years and has been found to be sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
618-2	Caely Shiraki	N/A	5/6/2018	Opposition is misinformed and should look at all of the evidence.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
618-3	Caely Shiraki	N/A	5/6/2018	Ridiculous to cut-off commercial aquatic fisherman's livelihoods without thoroughly reviewing all of the data that the state has required the license holders to report	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
619-1	Lillemor Dahlgren	N/A	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
619-2	Lillemor Dahlgren	N/A	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
619-3	Lillemor Dahlgren	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
620-1	Dan Vallentyne	N/A	5/4/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
620-2	Dan Vallentyne	N/A	5/4/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
620-3	Dan Vallentyne	N/A	5/4/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
620-4	Dan Vallentyne	N/A	5/4/2018	HI's natural ocean ecosystems are the life of the islands, and HI should lead the way globally in conservation measures to protect them, as it is a trying time for our oceans and reef ecosystems; protect HI's fish in all the ways you can.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
621-1	Lois Leitch	N/A	5/4/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
621-2	Lois Leitch	N/A	5/4/2018	Specific concerns about these species: Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
621-3	Lois Leitch	N/A	5/4/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
622-1	Hana Ketley	N/A	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
622-2	Hana Ketley	N/A	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
622-3	Hana Ketley	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
623-1	Kaleb Matlack	N/A	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
623-2	Kaleb Matlack	N/A	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
623-3	Kaleb Matlack	N/A	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
623-4	Kaleb Matlack	N/A	5/3/2018	Without a large diversity and large/natural/undisturbed fish populations, the marine ecosystem is bound to disintegrate within a few years of human interaction; save our planet with small local actions like preventing anyone from stealing from your local waters or anyone's waters.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
623-5	Kaleb Matlack	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
624-1	Joseph Benjamin	N/A	5/3/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
624-2	Joseph Benjamin	N/A	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
624-3	Joseph Benjamin	N/A	5/3/2018	The ocean is a precious resource; once it is off balance, it take decades for it to recover; let people see these aquatic animals in their natural habitats and keep the reefs healthy.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
624-4	Joseph Benjamin	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
625-1	Erin Goldman	IL	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
625-2	Erin Goldman	IL	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
625-3	Erin Goldman	IL	5/3/2018	Without certain species present, other species struggle as well as coral and marine plants, leading to an overall negative effect and possibly even leading to problems in water and food quality.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
625-4	Erin Goldman	IL	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
626-1	Mariana Rosas	N/A	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
626-2	Mariana Rosas	N/A	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are gone, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
626-3	Mariana Rosas	N/A	5/3/2018	These magnificent places deserve our respect and protection.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
626-4	Mariana Rosas	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
627-1	Mei Liu	HI	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
627-2	Mei Liu	HI	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are gone, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
627-3	Mei Liu	HI	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
627-4	Mei Liu	HI	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
628-1	Christian Phillips	HI	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
628-2	Christian Phillips	HI	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are gone, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
628-3	Christian Phillips	HI	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
628-4	Christian Phillips	HI	5/3/2018	Strict environmental laws set in place to ensure the sustainability and protection of our resources; DLNR has a public known reputation of not being pono.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
628-5	Christian Phillips	HI	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
629-1	Mark Koppel	HI	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
629-2	Mark Koppel	HI	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are gone, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
629-3	Mark Koppel	HI	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Puna, Hilo, Hamakua, Hawaii Kai, Lanikai/Kailua, North Shore.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
629-4	Mark Koppel	HI	5/3/2018	Save our reefs and our fish; it is really that simple.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
629-5	Mark Koppel	HI	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
630-1	Laurel Podesta	N/A	5/3/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Hermit crabs, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
630-2	Laurel Podesta	N/A	5/3/2018	Specific concerns about these species: Species I once encountered are missing, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
630-3	Laurel Podesta	N/A	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, North Kona, Waikiki/Diamond Head, North Shore, Maui/Molokai/Lanai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
630-4	Laurel Podesta	N/A	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
631-1	Gillian Bell	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
631-2	Gillian Bell	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
631-3	Gillian Bell	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
632-1	Mrs. Julie Miller	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
632-2	Mrs. Julie Miller	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
632-3	Mrs. Julie Miller	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
633-1	James Elder	HI	5/4/2018	West HI divers have been singled out and banned from diving while the divers on Oahu are free to continue catching fish; renew their licenses and do not give into groups of self interest who have no scientific data backing them up.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. An EA was developed for both the Island of Hawai'i as well as the Island of O'ahu.</p>
633-2	James Elder	HI	5/4/2018	An EIS was done on West HI and showed that the reef and the fish were in no danger or posed any negative impact to the ecosystem; DLNR has made sure the divers have followed the rules for decades.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.</p>
633-3	James Elder	HI	5/4/2018	Majority of the divers are close to retirement and need to finish their careers gracefully.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.</p>
634-1	Debbie DeLillo	N/A	5/4/2018	No scientific data to support the need for a ban; going to negatively affect so many people and take away so many jobs.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.</p>
635-1	Ms. Jay Takane	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
635-2	Ms. Jay Takane	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
635-3	Ms. Jay Takane	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
636-1	Ms. Lauren Spallino	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
636-2	Ms. Lauren Spallino	HI	5/4/2018	Have seen huge change in the number of coral reef fish since moving to HI in 1981; can only imagine how many fish are captured and how many fish die just due to handling and transport.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
636-3	Ms. Lauren Spallino	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
636-4	Ms. Lauren Spallino	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
637-1	Mr. Gary Harrold	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
637-2	Mr. Gary Harrold	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
637-3	Mr. Gary Harrold	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
638-1	Mrs. Char Alvarez	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
638-2	Mrs. Char Alvarez	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
638-3	Mrs. Char Alvarez	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
639-1	Ms. Ruth Pahinui	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
639-2	Ms. Ruth Pahinui	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
639-3	Ms. Ruth Pahinui	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
640-1	Mr. Ramiro Noguero	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
640-2	Mr. Ramiro Noguero	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
640-3	Mr. Ramiro Noguero	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
641-1	Ms. Renee Confair	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
641-2	Ms. Renee Confair	HI	5/4/2018	Aquiring HI's coral reef wildlife by aquarium collectors has led to missing species; HI has one of the highest counts of endangered and extinct animals in the world.	<p>Comment noted. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
641-3	Ms. Renee Confair	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
642-1	Ms. Charmaine Pulgados	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
642-2	Ms. Charmaine Pulgados	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
642-3	Ms. Charmaine Pulgados	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
643-1	Ms. Lisa Dearmin	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
643-2	Ms. Lisa Dearmin	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
643-3	Ms. Lisa Dearmin	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
644-1	Mrs. Ginger Chock	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
644-2	Mrs. Ginger Chock	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
644-3	Mrs. Ginger Chock	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
645-1	Mr. William Staley	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
645-2	Mr. William Staley	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
645-3	Mr. William Staley	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
646-1	Mrs. Cassandra Crawford	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
646-2	Mrs. Cassandra Crawford	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
646-3	Mrs. Cassandra Crawford	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
647-1	Mr. Gilmer Borbo	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
647-2	Mr. Gilmer Borbo	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
647-3	Mr. Gilmer Borbo	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
648-1	Ms. Diane Cornish	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
648-2	Ms. Diane Cornish	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
648-3	Ms. Diane Cornish	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
649-1	Mrs. Roberta Williams	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
649-2	Mrs. Roberta Williams	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
649-3	Mrs. Roberta Williams	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
650-1	Mrs. Delia Almares	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
650-2	Mrs. Delia Almares	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
650-3	Mrs. Delia Almares	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
651-1	Mr. Alan Espiritu	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
651-2	Mr. Alan Espiritu	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
651-3	Mr. Alan Espiritu	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
652-1	Jay Lovell	N/A	5/4/2018	EA shows the fishery is sustainable.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
652-2	Jay Lovell	N/A	5/4/2018	If 18 years of study's done by the state of HI is not good enough, what happens when the law is applied equally to all user groups who have zero data on their environment impact (dive charters, dolphin encounter, manta ray night dive, snorkel tours).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
652-3	Jay Lovell	N/A	5/4/2018	Tropical fish industry is not one of the problems in HI.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
652-4	Jay Lovell	N/A	5/4/2018	Time to restart the most regulated fishery in the sate and let these fisherman and woman go back to work before they loose everything they worked their lives for.	Sections 4.1 and 5.2 of each FEA addresses Socioeconomics,
653-1	The Coral Nusery	N/A	5/3/2018	Pass the EA; tropical fish industry in HI has proven to be sustainable through extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
654-1	Oahu Association of Aquarium Fishermen	HI	5/8/2018	The DEA includes all available scientific information on the effects of the HI aquarium fishery on the environment; conclusions are well-supported.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
654-2	Oahu Association of Aquarium Fishermen	HI	5/8/2018	Flame Wrasse occur primarily below the survey depths of the CREP surveys (98 ft) and therefore the majority of the population goes undetected, leading to a significant underestimation of the population size; supprt for this is provided by Kane and Tissot (2017) (more specifics given); actual percentage of the population removed by aquarium collection is actually below 1%.	The O'ahu FEA has been revised to include the Kane and Tissot (2017) reference (see Section 4.4.4.6) and associated information regarding the estimated population size and density of Flame Wrasse. The impact of commercial aquarium collection has been revised in Section 5.4.1.2.1 of the O'ahu FEA to reflect that aquarium collection is likely less than 1% of the overall population.
654-3	Oahu Association of Aquarium Fishermen	HI	5/8/2018	Yellow Tang collection results in the removal of 7% of the population, as stated in the DEA; population is readily replenished by large number of eggs produced by each female (more specifics given).	Comment noted. The high fecundity of Yellow Tang is discussed in Section 5.4.1.2.5 of the Hawai'i FEA and Section 5.4.1.2.6 of the O'ahu FEA.
654-4	Oahu Association of Aquarium Fishermen	HI	5/8/2018	Voluntary conservation measure: limit catch of Flame Wrasse to 10 per day.	The O'ahu FEA includes a new alternative that imposes a bag limit of 10 Flame Wrasse per day for commercial aquarium collectors in O'ahu (see Section 3.3 of the O'ahu FEA).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
654-5	Oahu Association of Aquarium Fishermen	HI	5/8/2018	Voluntary conservation measure: DLNR implement a closed area for Commercial Aquarium Fishing as illustrated on the map attached as Exhibit A; represents a cocession on the part of the fishing community and represents a good faith measure to work with DLNR.	The O'ahu FEA includes a new alternative that includes expansion of the existing Waikiki MLCD by 740 acres (see Section 3.3 oif the O'ahu FEA). See Figure 2 in the O'ahu FEA.
654-6	Oahu Association of Aquarium Fishermen	HI	5/8/2018	Recommendation: The review period for and further changes in bag limits coincide with the five year report to the legislature.	Comment noted. The applicant supports this comment.
654-7	Oahu Association of Aquarium Fishermen	HI	5/8/2018	Request the adoption of the Oahu EA and restoration of commercial licenses; ongoing financial iimpact is significant.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
655-1	Ms. Joy Silver	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
655-2	Ms. Joy Silver	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
655-3	Ms. Joy Silver	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
656-1	Ms. Eva Davenport	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
656-2	Ms. Eva Davenport	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
656-3	Ms. Eva Davenport	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
657-1	Ms. Makena Smith	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
657-2	Ms. Makena Smith	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
657-3	Ms. Makena Smith	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
658-1	Mr. David Sofio	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
658-2	Mr. David Sofio	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
658-3	Mr. David Sofio	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
659-1	Ms. Wanda Howley	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
659-2	Ms. Wanda Howley	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
659-3	Ms. Wanda Howley	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
660-1	Ms. Michelle Nicotre	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
660-2	Ms. Michelle Nicotre	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
660-3	Ms. Michelle Nicotre	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
661-1	Mr. Robert Wilcox	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
661-2	Mr. Robert Wilcox	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
661-3	Mr. Robert Wilcox	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
662-1	Mrs. Elsa Baxter	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
662-2	Mrs. Elsa Baxter	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
662-3	Mrs. Elsa Baxter	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
663-1	Mrs. RuthAnn Gianneschi	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
663-2	Mrs. RuthAnn Gianneschi	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
663-3	Mrs. RuthAnn Gianneschi	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
664-1	Mrs. Laurel Whillock	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
664-2	Mrs. Laurel Whillock	HI	5/4/2018	As a scuba diver, I've seen a definitive decrease in the diversity of fish life on the Big Island's reefs, except in areas that have been designated as MPA; entire reef system needs a long term break from collecting in order to return to a healthy and sustainable level.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
664-3	Mrs. Laurel Whillock	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
664-4	Mrs. Laurel Whillock	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
665-1	Ms. L. Cummings	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
665-2	Ms. L. Cummings	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
665-3	Ms. L. Cummings	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
666-1	Brandon Grimes	N/A	5/3/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
667-1	Midge Miller	HI	5/4/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
667-2	Midge Miller	HI	5/4/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
667-3	Midge Miller	HI	5/4/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
668-1	Hattie Gerrish	HI	5/3/2018	Concerned about the following species: Yellow Tangs, All White List Species Taken in West Hawaii.	<p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
668-2	Hattie Gerrish	HI	5/3/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.</p>
668-3	Hattie Gerrish	HI	5/3/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Hamakua	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
668-4	Hattie Gerrish	HI	5/3/2018	Need an independent, unbiased assessment.	Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
668-5	Hattie Gerrish	HI	5/3/2018	Concerned that with all the stress reef ecosystems are facing from global warming, aquarium fish harvesting just makes things worse and cannot be sustained; a large percentage of aquarium fish die shortly after being harvested, so it is therefore unsustainable and inhumane.	Comment noted. The cumulative effects of climate change are discussed in Section 5.4.3 of both FEAs.
668-6	Hattie Gerrish	HI	5/3/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
669-1	James Lovell	HI	5/7/2018	Comments from the opposition will not be based on fact or science but, misinformation and false statements. Most troubling comments and responses below:	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
669-2	James (Jim) Lovell	HI	5/7/2018	Collectors are under reporting their catch by 90% - Have never under reported my catch in the 40 years I have collected fish; comment just to portray fishermen in a negative manner.	Comment noted. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.
669-3	James (Jim) Lovell	HI	5/7/2018	Collecting hurts the tourism industry - Over 37% of the Kona coast has been shut down to collecting for 17-50 years, to guarantee the tourism industry will never be hurt by the aquarium fishermen.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics the various aspects of your comment. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017). In addition, the O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLC, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
669-4	James (Jim) Lovell	HI	5/7/2018	There is no limit to the numbers of fishermen or the number of fish that they collect - Number of fish and collectors are regulated by the demand.	Comment noted. The concept of "unlimited" collection is speculative and not reasonably foreseeable. The DEAs used the best available data (past commercial aquarium collection) to predict the reasonable outcome of issuance of permits for an additional year.
669-5	James (Jim) Lovell	HI	5/7/2018	Collecting has decreased the number of yellow tangs - See as many yellow tangs on the reef that I saw 39 years ago (actual increase in number of fish per man hour).	Comment noted. Section 5.4.1.2.1 of the Hawaii FEA in which shows an increase in Yellow Tang populations between 1999-2000 and 2016-2017 in all areas, including a 58% increase in Open Areas (see Table 9 of the Hawaii FEA). Impacts of commercial aquarium collection on Yellow Tang was determined to be less than significant in both FEAs.
669-6	James (Jim) Lovell	HI	5/7/2018	There has not been enough time to see impact for the aquarium trade - Studies for over 40 years, while no other groups/industries have any studies to determine their impact; aquarium industry is the most studied and regulate ocean industry in HI.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact. Cumulative impacts from other sources, including commercial and recreational fishing, is included in Section 5.4.3 of the FEAs.
669-7	James (Jim) Lovell	HI	5/7/2018	Have seen major declines in fish while snorkeling in Maui - Maui, Molokai, and Lanai have never had an established aquarium industry, so we need to start looking at what the recreational diving and snorkeling industries are doing to cause these declines they are seeing.	Comment noted. Commercial aquarium collection on these three islands was not covered by either FEA. Cumulative impacts from tourism on Hawai'i and O'ahu is discussed in Section 5.4.3 of both FEAs.
669-8	James (Jim) Lovell	HI	5/7/2018	Consider that on average, there are only 2-4 Kona aquarium fishermen in the ocean per day, covering over 140 miles of coastline, participating in an industry that is highly regulated and studied and proven to be sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
670-1	Pablo Celedon	Chile	5/5/2018	Support the aquarium industry in HI; please accept the environmental study regarding the sustainability of collection activities and reject the ban on HI fishing.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
671-1	Tom Wallace	N/A	5/7/2018	The amount of revenue generated by the aquarium industry is relatively small compared to the tourist industry.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
671-2	Tom Wallace	N/A	5/7/2018	No question as to whether removing fish from the reefs results in less fish on the reefs; comparing the undersea life in the northern sanctuary islands vs. Oahu should make this very clear.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
671-3	Tom Wallace	N/A	5/7/2018	Please outlaw the aquarium trade and give our reefs a chance to become healthy again.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
672-1	Chris Atkinson	HI	N/A	How can you believe an EA that was not done in all Hawaiian waters?	Comment noted. The FEAs cover commercial aquarium collection on the islands of Hawai'i and O'ahu.
673-1	Lucinda Harmony	AZ	5/7/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
673-2	Lucinda Harmony	AZ	5/7/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
673-3	Lucinda Harmony	AZ	5/7/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
674-1	Sally Trufant	AL	5/7/2018	Science proves that the ornamental fish industry is sustainable and does not adversely affect the environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
674-2	Sally Trufant	AL	5/7/2018	Collecting and selling ornamental fish from HI provides jobs not only in HI but all over the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
674-3	Sally Trufant	AL	5/7/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
674-4	Sally Trufant	AL	5/7/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; if the decision to reopen the fishery is a scientific and not political one, then these assessments justify the reopening.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
674-5	Sally Trufant	AL	5/7/2018	DEAs demonstrate both that the aquarium fish populations are stable/growing and that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
675-1	Paul Trevithick	HI	5/7/2018	All tropical fish collecting fishermen I've known have been responsible practitioners of their trade who want nothing more than to continue working at the jobs they enjoy and providing for their families.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
675-2	Paul Trevithick	HI	5/7/2018	Have read many articles over the years that confirm reasonable and responsible controls on the collecting industry have maintained a healthy fish population.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
675-3	Paul Trevithick	HI	5/7/2018	Many of the opposition letters in the local paper and personal comments are coming from emotional appeals that have very little substantial evidence to back them up or from self interest and self serving groups that have competitive interests in the same waters.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
676-1	Cynthia Harmony	AZ	5/7/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
677-1	Alexander Garcia	HI	5/7/2018	Comprehensive documents that include all the available scientific information on the effects of the HI aquarium fishery on the environment; well-supported conclusions.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
677-2	Alexander Garcia	HI	5/7/2018	Not aware of any additional scientific information that these document omit or do not fully consider.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
678-1	Dante Harmony	AZ	5/7/2018	Impressed by the stature of the scientiists that peer-reviewed these environmental assessments and thoroughness with which they did so; scientific opinion certainly supports the sustainability of the HI fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
679-1	Dane Harmony	AZ	5/7/2018	Facts matter; there isn't diminishing populations of fish due to collectors.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
680-1	Stockly's Aquariums	HI	5/8/2018	DEA includes all available scientific information on the effects of the Hawaii aquarium fishery on the environment; conclusion is well-supported.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
680-2	Stockly's Aquariums	HI	5/8/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; DEA demonstrates that the aquarium fishery is not adversely affecting these or other fish populations in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
680-3	Stockly's Aquariums	HI	5/8/2018	The three main species of landed fish are harvested at a rate of 5% or less of the overall population, which has been determined to be on the low end of what published literature considers to be a sustainable harvest (Ochavillo and Hodgson 2006); the remaining permitted species are harvested at less than 1% of the overall population.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
680-4	Stockly's Aquariums	HI	5/8/2018	Comprehensive rules package (HAR 13-60.4) passed with layers of additional management, including: bag limits and/or size restrictions on the three most landed fish, establishment of a White List of approved species, expansion of the Pebble Beach FRA, creation of an additional required permit; indicators in the data compiled by the WHAP yielded positive results and the White List achieves a complete ban on the harvest of all invertebrates for aquarium purposes.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
680-5	Stockly's Aquariums	HI	5/8/2018	Further suggest and support that the HEPA reivew period should coincide with the five year report to the legislature, in the interest of cost effectiveness and practicality of labor involved, as well as the fact that some species experience highly variable recruitment between years (Dr. Walsh, 2010 Legislature Report).	Comment noted. The applicant supports this comment.
680-6	Stockly's Aquariums	HI	5/8/2018	Request the advancement and restoration of commercial licenses and allowing use of fine mesh net as soon as possible.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
681-1	Stefani Specker-Cook	HI	5/5/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
681-2	Stefani Specker-Cook	HI	5/5/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
681-3	Stefani Specker-Cook	HI	5/5/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
681-4	Stefani Specker-Cook	HI	5/5/2018	Massive decline in marine biodiversity, rare to no schools of fish, entire reefs dead, and extremely rare finding of larger marine animals.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)
681-5	Stefani Specker-Cook	HI	5/5/2018	The sequences of over fishing, plastic pollution, bleaching, and species exploitation for aquariums are all factors that ocean cannot sustain; 60 million reef fish have been taken alone in HI for aquariums across the world.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. other sources of cumulative impacts are discussed in Section 5.4.3 of both FEAs.
681-6	Stefani Specker-Cook	HI	5/5/2018	Eco-tourism brings in a revenue of about \$33 trillion every year; taking down ecosystems ultimately leads to a decline in tourism.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
681-7	Stefani Specker-Cook	HI	5/5/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
682-1	Anna Slomka	N/A	5/5/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
682-2	Anna Slomka	N/A	5/5/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
682-3	Anna Slomka	N/A	5/5/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
682-4	Anna Slomka	N/A	5/5/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
683-1	Marine Conservation Science Institute	HI	4/30/2018	The marine aquarium fishery in HI has fallen victim to a well-orchestrated campaign of misinformation led by a special group that pays little attention to the long-term monitoring data of this fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
683-2	Marine Conservation Science Institute	HI	4/30/2018	The EA is well organized, well written, and accurately present fish monitoring and population data; DLNR has done an outstanding job of gathering data to indicate that the fishery is sustainable (citations given).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
683-3	Marine Conservation Science Institute	HI	4/30/2018	Actual concerns for coral reef health are global warming, nutrient runoff, removal of breeding adult fishes (hook-and-line and spearfishing); managing the aquarium fishery for Achilles tang take but not the food fishery is not a viable option for insuring both industries are sustainable.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA. Cumulative impacts from global warming and other fishing (e.g., commercial, recreational) are discussed in Section 5.4.3 of both FEAs.
683-4	Marine Conservation Science Institute	HI	4/30/2018	Recommend that funding be continued to monitor the populations of reef fishes, remembering that recruitment is stochastic.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Indirect impacts from the commercial aquarium collection, including funding of monitoring, is discussed in Section 5.2.2 of both FEAs.
683-5	Marine Conservation Science Institute	HI	4/30/2018	Suggest that all of HI adopt marine aquarium regulations similar to those put in place in West HI.	Comment noted. An additional alternative was added in the O'ahu FEA. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
684-1	Eunice Seet	HI	N/A	Stop the aquarium trade.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
685-1	Jean Jewell	HI	5/5/2018	Ask that you seriously consider the impact that taking our precious resources has on our delicate environment; EA shows definite bias toward the commercial fish collecting businesses.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
685-2	Jean Jewell	HI	5/5/2018	Have a glass bottom boat tour that operates in one of the "not take" zones that was created in the 90s; have seen some stabilization but not return to the previous years.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. No currently closed zones would be reopened to commercial aquarium collection. An additional alternative was added to the O'ahu FEA that includes expansion of the existing Waikiki MLCD.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
685-3	Jean Jewell	HI	5/5/2018	Don't really know how many fish are being taken; almost impossible to enforce laws; according to the study, there are 158 permittees and only reports from 68 permittees.	Comment noted. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.
685-4	Jean Jewell	HI	5/5/2018	Conflict of interest because the Pet Industry Joint Advisory Council represents pet stores, breeders, and suppliers.	Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.
685-5	Jean Jewell	HI	5/5/2018	Fish collecting accounts for \$1,818,500 in revenue and only 0.5% wholesale tax, while tourism brings in 10.7 million visitors, 10 billion dollars, and 200,000 jobs with 4% sales tax.	Comment noted. The impacts of aquarium fish collection on socioeconomics, as well as a discussion of tourism in Hawai'i, is included in Section 5.2 of both FEAs.
685-6	Jean Jewell	HI	5/5/2018	People are surprised by lack of fish, especially those that have been here in previous years.	Comment noted. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
685-7	Jean Jewell	HI	5/5/2018	Reefs are struggling to stay healthy - warmer waters, pollution from land and other factors have strained them; Kona has a delicate ecosystem due to coral bleaching in 2015, and 90% of yellow tang were collected on HI island, mostly Kona.	Comment noted. Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA note that two studies have concluded that the aquarium fishery and aquarium fish collection practices have no significant impact on coral or the reef ecosystem. In addition, Section 5.4.1.2.1 of the Hawai'i FEA includes information from the DAR illustrating increasing populations of Yellow Tang in West Hawaii within all areas, including open areas (see Table 10 and Figure 5).
685-8	Jean Jewell	HI	5/5/2018	Need to look to other countries that have made strict laws to protect their reefs (Central and South America, Philippines, etc.).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). In addition, both FEAs discuss the existing regulations that govern commercial aquarium fish collection. Both FEAs also include a new Preferred Alternative with additional regulations.
686-1	Christine (Tina) Owens	HI	5/7/2018	The court ruling which led to the requirement of an EA is a badly flawed decision and opens a Pandora's box of problems for the state of HI; why only one industry is required to comply, when others have far more potential to damage reefs; EA is supposed to be for a "project."	Comment noted. The applicant prepared the FEAs in accordance with state law.
686-2	Christine (Tina) Owens	HI	5/7/2018	Law is being maliciously manipulated; people who initiated the lawsuit had publicly stated that the aim was not to study impact but to eliminate an industry out of personal animus.	Comment noted. The applicant prepared the FEAs in accordance with state law.
686-3	Christine (Tina) Owens	HI	5/7/2018	Strongly hope that the DLNR/DAR will accept the conclusion of no significant impact and forego the nightmare that rejecting it would bring.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
687-1	Matt Pedersen	N/A	5/7/2018	Marine aquarium hobby and trade make for an easy scapegoat and on paper seem to be one of the reef stressors that could easily be done away with; however, science doesn't support any of the arguments against the marine aquarium fishery in HI; an outraged "moral" viewpoint is being used to disenfranchise another small group who are simply following the law and fishing in a sustainable manner.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
687-2	Matt Pedersen	N/A	5/7/2018	Fishery has been proven sustainable for years; recreational/sustenance fishery, which is orders of magnitude larger, not licensed, not subjected to any EA, and not the subject of scrutiny of these organizations; recreational fishermen will be subject to this same attention next.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
687-3	Matt Pedersen	N/A	5/7/2018	DLNR/DAR measures are already in place to regulate the industry; an anti-aquarium activist who says otherwise is false; webiste links included in testimony (see document).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
688-1	Stephen Chandler	N/A	5/7/2018	Over fishing has been a huge issue and has caused the native fish populations to dwindle, which in turn affects other species; giving them time to repopulate will in the long run help the businesses because there will be more stock and the coastal systems can recover from years of abuse.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
689-1	Sally Myers	N/A	5/7/2018	Fishery is one of the best managed fisheries in HI; proven to be sustainable and has been regulated for years.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
689-2	Sally Myers	N/A	5/7/2018	The smallest, most regulated user group is being singled out; other user groups are not being regulated or require an EA.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
689-3	Sally Myers	N/A	5/7/2018	Allow these fishermen to go back to work and apply the law fairly to all user groups that are not being held accountable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
690-1	Alisa Funke	N/A	5/7/2018	Have seen the fishermen at work; have very little impact on the environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
690-2	Alisa Funke	N/A	5/7/2018	Support this industry and hope that legislators would take the science into consideration instead of false accusations brought forward by special interest groups.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
691-1	Bryan Ehlers	FL	5/7/2018	EA's science is proof it is a sustainable industry; allow the collection of aquarium fish to continue.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
691-2	Bryan Ehlers	FL	5/7/2018	Would be good to consider some regulation like allowing only those species to be collect that thrive in aquariums; leave the coral eating species in the sea unti new foods are available to them so that they can thrive in the aquarium.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
692-1	G. Christopher Buerner	CA	N/A	Public opinion is increasingly shaped and influenced in part by the coordinated efforts of activists with a specific moral or political agenda without any scientific basis or support; if moral bias regarding the use of natural resources and living species wins out over science and data, we have reached the precipice of a very slippery slope.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
692-2	G. Christopher Buerner	CA	N/A	The past two decades of study and regulation have illustrated the harvest of target ornamental marine species appears to be very sustainable; if new information materializes in the future, then a science-based approach to catch limits, species catch restrictions, etc. should be considered.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact. The FEAs explain how new information may be considered when it becomes available (see Section 5.5 of both FEAs).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
692-3	G. Christopher Buerner	CA	N/A	Discriminatory to cripple an entire industry that is based on sustainable catch levels; primary concern lies with species on which there is significant pressure from far more than just the aquarium harvest; little benefit will come to the species as a result of precluding the catch of one type of fishery over another.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing, are included in Section 5.4.3.
692-4	G. Christopher Buerner	CA	N/A	Suggesting an approach to manage both fishing activity and fish-stocks based on data for any species that are harvested for any purpose.	Comment noted. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
692-5	G. Christopher Buerner	CA	N/A	The Marine Stewardship Council considers wild-harvest fisheries to be viable and sustainable with harvests at far greater percentages of standing stock than the Hawaiian aquarium industry's take.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
693-1	John Ito	HI	N/A	Evidence of a decline in Butterfly fish in HI waters; how can collectors still catch them.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
694-1	Leila Ishiki	HI	N/A	What is the trade doing to ensure reef fish survival in 20 years.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts, including reasonably foreseeable aquarium fish collection in future years, are discussed in Section 5.4.3 of the FEAs.
695-1	Thomas Carter	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
695-2	Thomas Carter	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
695-3	Thomas Carter	HI	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
696-1	Ms. Jo Corrigan	TN	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
696-2	Ms. Jo Corrigan	TN	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
696-3	Ms. Jo Corrigan	TN	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
697-1	Ms. Cherie Beatty	TN	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
697-2	Ms. Cherie Beatty	TN	5/7/2018	The rape of the environment largely because of the influence of commercial interests, relying on shoddy studies, intended to prove what best suits their own purposes, should concern us all	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.</p>
697-3	Ms. Cherie Beatty	TN	5/7/2018	The government's responsibility to protect the environment; responsibility to the future generations and also to be respectful of the spirit of creation that imbues every living creature with purpose.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law</p>
697-4	Ms. Cherie Beatty	TN	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
697-5	Ms. Cherie Beatty	TN	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
698-1	Ms. Alice Saul	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
698-2	Ms. Alice Saul	HI	5/7/2018	Need to register my dismay with the continued ability of commercial depopulation of our essential ocean ecosystem; been allowed to go on for far too long.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
698-3	Ms. Alice Saul	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
698-4	Ms. Alice Saul	HI	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
699-1	Dr. Renee Boblette	CA	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/Location	Date Received	Comment	Response
699-2	Dr. Renee Boblette	CA	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
699-3	Dr. Renee Boblette	CA	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
700-1	Ms. Andree Joy	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
700-2	Ms. Andree Joy	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
700-3	Ms. Andree Joy	HI	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
701-1	Mrs. Kelly Clever	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
701-2	Mrs. Kelly Clever	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
701-3	Mrs. Kelly Clever	HI	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
702-1	Miss Nastassia Hill	HI	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
702-2	Miss Nastassia Hill	HI	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
702-3	Miss Nastassia Hill	HI	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
703-1	Rylee Brooke	HI	N/A	How will you protect the East Oahu Moorish Idols.	Comment noted. The O'ahu FEA describes regulations in place to protect Moorish Idol (see Section 1.2.3) and summarized the impacts to the species in Table 9. Collection is estimated at less than 0.01% of the total O'ahu population, which is well below what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
704-1	David Funke	N/A	5/7/2018	Over-regulation must also be prevented; the EAs show that aquarium fishermen are doing a good job harvesting these fish in a responsible way; allow science to prevail and fishermen to get back to work.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
705-1	Alabama Aquarium and Pond Services	AL	5/7/2018	Please accept the EA and reject the ban on collection for the ornamental fish industry; HI has been long known as an influential and important model for sustainable fisheries across the globe and is an important economic driver as well.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
706-1	Nick Newgaard	N/A	5/7/2018	Fishery has been proven sustainable and has been regulated for years, despite the opposition claims.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
706-2	Nick Newgaard	N/A	5/7/2018	Have witnessed the fishermen at work with honesty and integrity; allow them to go back to work and apply the law fairly to all user groups that are not being held accountable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
707-1	Everything Fish Inc.	HI	5/4/2018	Science is very clear that collecting aquarium fish is sustainable based on the data collected in West HI; make sure we follow science not feeling or prejudices about the moral aspects of keeping fish in aquariums; the controls that have been put in place have protected all the species and will allow the fishery to continue for many years.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
707-2	Everything Fish Inc.	HI	5/4/2018	Aquariums connect us to the ocean and aquarists are some of the most ardent supporters of marine conservation.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
707-3	Everything Fish Inc.	HI	5/4/2018	Next step will be to come after the commercial fishermen.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
708-1	Deborah Wallace	N/A	5/5/2018	Noticed dramatic decrease in the amount of tropical fish over the last 15 years, in addition to coral damage, coral bleaching, and other environmental impacts.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The DAR study also concluded that from 2016 to 2017, approximately one year after coral post-bleaching mortality subsided, minimal change in coral cover was documented within areas open to commercial aquarium collection, compared to a slight decline in mean coral cover in areas closed to collection, and this difference was statistically significant (p = 0.038).
708-2	Deborah Wallace	N/A	5/5/2018	Need our reefs for the health of our islands, tourism, and coral reefs.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
708-3	Deborah Wallace	N/A	5/5/2018	Coral reefs are here for everyone to enjoy, and for some small group to be taking our precious resources of tropical fish is certainly not sustainable and is just wrong.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
709-1	Trung Diep	N/A	5/4/2018	Please reissue fishing permits so those in the trade can support their families again; evidence present in the EA clearly does not support a need to close this fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
710-1	Bill Walker	WA	5/8/2018	Through decades of visits, have seen our beloved reefs deteriorate; coral is dead or withering away and massive schools of fish just diappeared; health of the reef is related to development, sunscreen, runoff, chemicals, global warming, and aquarium fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Impacts from tourism and climate change are discussed in Section 5.4.3 of both FEAs.
710-2	Bill Walker	WA	5/8/2018	Shocking to see the virtual carte blanche the state of HI continues to give to the aquarium fishing industry; preparing to torpedo entire travel economy; stop taking aquarium industry's money and ban all aquarium fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Both FEAs discuss the existing regulations that govern commercial aquarium fish collection. Both FEAs also include a new Preferred Alternative with additional regulations. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics the various aspects of your comment. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
711-1	Doug Perrine	HI	5/5/2018	Have DEA commissioned by an interested part, rather than HI DLNR, results in two serious problems: 1) inherent pressure on the consultant to produce a document acceptable to the party which has hired them, and 2) as stated in section 3.0, "The HEPA recommends that applicants consider and objectively evaluate reasonable alternatives to the preferred alternative...Any alternative that would include more, or less, restrictive aquarium permit requirements is not feasible for the purposes of this DEA because the applicant has no legislative or regulatory authority..." Thus, the applicant is unable to present reasonable alternatives as the DLNR could have presented if it had prepared the DEA itself, as it should have done.	Comment noted. The applicant prepared the FEAs in accordance with state law. The language quoted in the comment regarding alternative development has been revised, see Section 3.0. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
711-2	Doug Perrine	HI	5/5/2018	Neither of the alternatives represents a reasonable management strategy because neither provides a regulatory framework to allow the aquarium fishery to continue collecting the abundant species which form the mainstay of its business, while protecting species for which there is inadequate data to manage them sustainably, including the flame wrasse, the longfin anthias, the psychedelic wrasse, Fisher's angelfish, and Tinker's butterflyfish (section numbers given for listings).	Developing a management strategy was not part of the purpose and need of either FEA (Section 2.0 of both FEAs). However, an additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD. Additional information on densities of Psychedelic Wrasse, Fischer's Angelfish, and Tinker's Butterflyfish were added in Section 5.4.1.2.3 of both FEAs.
711-3	Doug Perrine	HI	5/5/2018	In Table 15, lists for 3 of these species, an estimated maximum percent of the HI populations of the reported catch. Figures are based on CREP data, which is unreliable without confirmation from the WHAP surveys, which were unable to produce estimates for these 3 species. The other 2 are listed in Table 14 as N/A because neither the CREP nor the WHAP surveys were able to produce population estimates.	Both WHAP and CREP data sets are presented and analyzed in the Hawai'i FEA. However, due to the larger spatial coverage and greater range of depths surveyed by the CREP, CREP data were considered to be a better estimator of island-wide fish populations, and therefore serve as the primary basis for the impact analysis found in Section 5. Additional information on densities of Psychedelic Wrasse, Fischer's Angelfish, and Tinker's Butterflyfish were added in Section 5.4.1.2.3 of both FEAs.
711-4	Doug Perrine	HI	5/5/2018	On p. 77 under "Other White List Species," it is stated that "...individuals collected would make up less than 10% of their overall population and less than 1% for most White List Species," which implies that management should be based on "most species" ignoring the unknown impacts to species that are inadequately surveyed and/or endemic and/or Species of Greatest Conservation Need.	The statement referenced in this comment is referring to collection in the WHRFMA, where collection of aquarium fish is limited to the 40 White List species. White List species which are SGCN are discussed in Section 5.4.1.2.3 of the Hawaii FEA.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
711-5	Doug Perrine	HI	5/5/2018	With respect to the five species listed above, the document repeatedly makes poorly-supported assertions and implications that these species are "naturally" resident primarily in waters below safe scuba depths and that therefore collection of the small portions of the populatiosn available in shallower waters poses no problems; object to this because there are still consequences to depleting populations in shallower waters (examples given).	Additional information on densities of Psychedelic Wrasse, Fischer's Angelfish, and Tinker's Butterflyfish were added in Section 5.4.1.2.3 of both FEAs which support their deepwater habits. Peer reviewers confirm this information is accurate.
711-6	Doug Perrine	HI	5/5/2018	Concern should be the DLNR's responsibility as steward of the environment to adopt the precautionary principle, especially in regards to endemic species; no collection should be allowed for species where survey data is inadequate.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.
712-1	James M. Brown	HI	5/4/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
712-2	James M. Brown	HI	5/4/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
712-3	James M. Brown	HI	5/4/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
712-4	James M. Brown	HI	5/4/2018	It defies logic that the taking of species has no impact on the species; have seen the reefs and fishes have decline significantly in the last 30 years.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
712-5	James M. Brown	HI	5/4/2018	Entire reef ecosystem is vital to HI residents and visitors.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p>
712-6	James M. Brown	HI	5/4/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
713-1	Sarah Williams	HI	5/4/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Frogfishes, Shrimps, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
713-2	Sarah Williams	HI	5/4/2018	Specific concerns about these species: Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
713-3	Sarah Williams	HI	5/4/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Puna, Hilo, Waikiki/Diamond Head, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
713-4	Sarah Williams	HI	5/4/2018	Kopoho - Waiopai - in Puna offers world class snorkeling because it is a conservation area; is adversely impacted by poachers and sunscreens but still in much better shape than reefs that are not protected.	<p>Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p> <p>Cumulative impacts from tourism are discussed in Section 5.4.3 of both FEAs. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
713-5	Sarah Williams	HI	5/4/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
714-1	Matthew Ross	HI	5/7/2018	EA validates that the aquarium fishery is sustainable at current levels and does not harm the environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
714-2	Matthew Ross	HI	5/7/2018	Hundreds of local residents depend on the fishery to earn a living, and the closure of the fishery has had serious implications for their livelihoods.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
714-3	Matthew Ross	HI	5/7/2018	Use of small mesh nets for aquarium fishing has very minimal impact; commercial fishing for food fish is of much greater concern; suspension of permits has forced fishermen to turn to other fishing methods and target species, which almost certainly increased fishing pressure for food fish, which is not good for the environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
715-1	Kealoha Pisciotta	N/A	5/6/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
715-2	Kealoha Pisciotta	N/A	5/6/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
715-3	Kealoha Pisciotta	N/A	5/6/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Puna, Hilo, South Kohala, Waikiki/Diamond Head, Lanikai/Kailua, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLC, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
715-4	Kealoha Pisciotta	N/A	5/6/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
715-5	Kealoha Pisciotta	N/A	5/6/2018	Must be a priority to not frustrate the recovery or do anything that makes it difficult for the ocean's abundance to return to our reefs.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
715-6	Kealoha Pisciotta	N/A	5/6/2018	Since there is no conclusive evidence demonstrating that the aquarium trade is not significantly and cumulatively adversely impacting our cultural and natural reef ecosystem, the precautionary principle applies and EIS must be done.	The FEAs both conclude that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
715-7	Kealoha Pisciotta	N/A	5/6/2018	There is no exception to the court order, as claimed by the State; administration continues to force the burden on the public to sue, which is burdening the tax paying public and the Constitution.	Comment noted.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
715-8	Kealoha Pisciotta	N/A	5/6/2018	The EA fails the HEPA and environmental review criteria on every level, violating HRS 343; State of HI has also allowed a North American pet trade group to control and hire a controversial consulting company is outrageous.	Comment noted. The FEAs were developed consistent with applicable laws and regulations. The FEAs have been revised in response to comments as required by such regulations. Please refer to FEAs and responses to comments for a fuller description of these edits and changes.
715-9	Kealoha Pisciotta	N/A	5/6/2018	The Cultural Impact Section is beyond inadequate and completely ignorant of the fact that many of the reef animals are our Ohana/family guardians and the excessive taking of them upsets the balance and harmony of the reef and our relationships and the creative forces that make life continue.	Comment noted. The impacts to cultural resources sections have been revised in the FEAs, see Section 5.3 of both FEAs.
715-10	Kealoha Pisciotta	N/A	5/6/2018	Call upon the State decision makers to invoke the Aloha Spirit Law under HRS 5-7.5.	Comment noted.
716-1	Kahealani Alapai	N/A	5/6/2018	Concerned about the following species: Snowflake Eels and other puhi, All top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
716-2	Kahealani Alapai	N/A	5/6/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
716-3	Kahealani Alapai	N/A	5/6/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Ka'u, North Kohala, Puna, Hilo, North Shore, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
716-4	Kahealani Alapai	N/A	5/6/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
716-5	Kahealani Alapai	N/A	5/6/2018	Respect, preserve, and protect should be our number one priority for the future of HI.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
717-1	Sterling Kobrakajj	N/A	5/7/2018	Concerned about the following species: All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
717-2	Sterling Kobrakajj	N/A	5/7/2018	Specific concerns about these species: The natural beauty of coral reefs is diminished.	Comment noted. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
717-3	Sterling Kobrakajj	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
717-4	Sterling Kobrakajj	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
717-5	Sterling Kobrakajj	N/A	5/7/2018	60% of world's coral reef is dying.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
718-1	Eric Koch	HI	5/8/2018	Have fished in the HI aquarium fishery for 14 years and can say without a doubt that it is sustainable; analysis within the HEPA document utilizes the best available science.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
718-2	Eric Koch	HI	5/8/2018	Fishery is thriving because juvenile fish are targeted for capture and the amazing reproductive capabilities of the reef fish, as well as the comprehensive WHRFMA management plan.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
718-3	Eric Koch	HI	5/8/2018	Fishery contributes much to the local residents in West HI, including many jobs.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
718-4	Eric Koch	HI	5/8/2018	Facts must lead the way when measuring impact and management; fishery is being scrutinized because of a small group of environmentalists, backed by their mainland activist groups, who base their arguments on morality and feelings.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
718-5	Eric Koch	HI	5/8/2018	Suggestion: Reduction in the Achilles bag limit for the WHRFMA to five for any and all user groups.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.
718-6	Eric Koch	HI	5/8/2018	Suggestion: Make the HEPA review period five years at the very least; HEPA law should be changed via the legislature to exclude fisheries or water based activities because DAR/DLNR already oversee and manage the fishery.	Comment noted. The applicant supports this comment.
719-1	Senate Committee on Water and Land	HI	5/8/2018	Concerned that the draft EAs are unreasonably narrow in their approach and fail to meet the necessary standard (Chapter 343) because they examine the impact of the commercial aquarium collection on the two islands separately, limit the review to collection over a one-year period (instead of long-term), and consider only two outcomes; artificially constrain the analysis and ignore the larger context in which commercial collection occurs.	Comment noted. An additional alternative has been included in the FEAs for both documents analyzing conservation measures proposed by commenters.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
719-2	Senate Committee on Water and Land	HI	5/8/2018	Catch reports based on data submitted to the Department's Division of Aquatic Resources reflect continued collection of fish and other aquatic life for aquarium purposes at rates approaching half of the catch reported in months prior to the bag; the draft EAs do not discuss the effects of illegal and unreported commercial collecting on the fish and other aquatic life populations.	The No Action Alternative in the FEAs have been revised (Section 3.1 in both FEAs and throughout Section 5.0) to reflect continued collection of fish and other aquatic life using legal methods allowed under a CML.
719-3	Senate Committee on Water and Land	HI	5/8/2018	Draft EAs propose the continued taking of public resources for personal profit without discussing any of the issues that led to the ban and the environmental review process no proposing alternatives to improve the system; Department should find that the proposed actions may have a significant effect on the environment, thus triggering the preparation of an environmental impact statement.	The FEAs both conclude that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
720-1	Daniel Coughlin	HI	5/8/2018	As a collector and shipper of HI reef fish since 1967, have seen the industry mature over the decades to become one of the best managed and regulated fisheries worldwide.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
720-2	Daniel Coughlin	HI	5/8/2018	Facts and studies concerning tropical reef fishing in HI shows it is a viable renewable and sustainable resource.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
720-3	Daniel Coughlin	HI	5/8/2018	Urge you to reinstate aquarium fish permits as soon as possible, for the sake of the fishermen.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
721-1	Robert Wintner	HI	5/8/2018	Process is skewed and jaded to favor commercial interests over HI public reef trust; process of two separate impacts is disingenuous at best, crooked at least; aquarium trade has had its way and continues to do so through the commercial interest of PIJAC, not a stakeholder in HI natural resources nor a pono player.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
721-2	Robert Wintner	HI	5/8/2018	Any assessment finding no impact is patently wrong; the Ige Administration has gone against the legislature and the Supreme Court on this issue and should defer to the will of the people, not to prive commercial interests.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
722-1	Western Pacific Regional Fishery Management Council	N/A	5/8/2018	The WPRFMC staff have concluded that the preferred alternative is supported by the best information available at this time.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
723-1	Moku Loa Sierra Club	HI	5/8/2018	Support Alternative A and request a full EIS of the trade's environmental, cultural, and ethical impacts.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
723-2	Moku Loa Sierra Club	HI	5/8/2018	Support Res. 308 requesting the State to ban commercial aquarium fish collection as step toward conserving our endemic reef ecosystem for its inherent value for future generations.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
723-3	Moku Loa Sierra Club	HI	5/8/2018	"Removal of large numbers of herbivores such as the yellow tang can cause reef areas to be overrun and smothered with algae. The removal of clearn fishes may result in a higher parasitic load on other reef fishes" (Citation given).	Given the conclusions in the FEAs that commercial aquarium collection is not significantly impacting the populations of any of the White List Species on the island of Hawai'i or the top 20 collected species in O'ahu, the species are anticipated to continue to serve their functions in the ecosystem. In addition, as noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
723-4	Moku Loa Sierra Club	HI	5/8/2018	While harvesting and damaging coral in HI has been illegal for decades, no protections exist for the fishes and invertebrates essential to reef health and beauty; many of the benthic invertebrates collected involve destruction or alteration of live rock and coral to gain access to.	Comment noted. Section 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA note that two studies have concluded that the aquarium fishery has no significant impact on coral or the reef ecosystem.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
723-5	Moku Loa Sierra Club	HI	5/8/2018	Less than 50% of required collection reports are filed and none are verified; actual catch may have been 1.5 to 3.5 million per year, according to Dan Polhemus (Citation given); citations/information give for the following: Kihei reefs contribute \$8,000,000 to the State economy from the snorkeling and diving industry, aquarium fish collecting has caused populations to decline by 38-78% on the reefs they're taken from, fewer than 1% of fish survive more than a year in captivity, recently 600 yellow tang only made it as far as the garbage cans in Honohokau, inhumane fin and spine trimming continues.	<p>Comment noted. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.</p> <p>As noted in Section 5.2.2.2 of the FEA, available data do not suggest that commercial aquarium collection has impacted the tourism industry in Hawai'i. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).</p> <p>As discussed in the Hawai'i FEA, population trends for two of the top three collected species (Yellow Tang and Kole) show stable or increasing population trends. While the third species, Achilles Tang, has shown past decreases in population size, an alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.</p>
723-6	Moku Loa Sierra Club	HI	5/8/2018	Suggest that those making a living from the trade convert their endeavors to the marine tourism business or to carry out needed studies of the reef ecosystem.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
723-7	Moku Loa Sierra Club	HI	5/8/2018	Pose the following questions/needed areas of study: long term effects on reef ecosystem from removal of hundred of thousands of fishes yearly; long term effects to coral reefs of increased parasitic load created by removing cleaner fishes/yellow tang; how are shrimp from anchialine ponds managed.	Comment noted. Long-term impacts are discussed in Section 5.4.3. Impacts to populations are discussed in Section 5.4.
724-1	Malayna Oliver	N/A	5/8/2018	Have seen how the harvested fish are treated as disposable; relatively valueless once harvested, but contribute to native ecosystems and bolster the tourism industry in nature.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>In addition, Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p>
724-2	Malayna Oliver	N/A	5/8/2018	Many populations are struggling to maintain the replacement level; protect them and leave something for future generations.	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
725-1	Caribbean Tropicals, Inc.	FL	5/8/2018	Pass the EA; tropical fish industry in HI has proven to be sustainable through extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
726-1	Mike Noll	N/A	5/8/2018	Observed a steady decline in certain types of reef fish; Yellow tang now only in pockets over their former range; Saddleback butterfly no longer spotted (recorded in dive logs).	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>Yellow Tang are already regulated on both islands with bag limits and size limits. In addition, Section 5.4.1.2.1 of the Hawaii FEA includes information from the DAR illustrating increasing populations of Yellow Tang in West Hawaii within all areas, including open areas (see Table 10 and Figure 5).</p>
726-2	Mike Noll	N/A	5/8/2018	Urge you to support and enforce limits on aquarium fishing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. In addition, both FEAs discuss the existing regulations that govern commercial aquarium fish collection. Both FEAs also include a new Preferred Alternative with additional regulations.
727-1	Benepets	N/A	5/8/2018	Fully support the aquarium industry in HI and urge you to accept the EA and reject the ban on HI fishing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
728-1	Marilyn Dougery	HI	5/8/2018	Protect the reefs and wildlife; limit the collection for aquariums.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>In addition, both FEAs discuss the existing regulations that govern commercial aquarium fish collection. Both FEAs also include a new Preferred Alternative with additional regulations.</p>
728-2	Marilyn Dougery	HI	5/8/2018	Change in Honokaope Bay is dramatic (fewer species, smaller schools, and dying coral).	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
729-1	Maurice Williams	N/A	5/7/2018	HI fish are an important component in the success of my company, which supports myself and several employees, and this hobby.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
729-2	Maurice Williams	N/A	5/7/2018	Please accept the EA and reject the ban on HI fishing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
730-1	Robert Culbertson	HI	5/4/2018	Reject any limitations by the Department's solicitation on exclusively 'scientific grounds' and call into question any implied authority to abet a practice that does not serve the public interest, nor accords with the legal and ethical mandate within the DLNR.	Comment noted. The applicant prepared the FEAs in accordance with state law.
730-2	Robert Culbertson	HI	5/4/2018	Critical overview of declining abundance and diminished ecological health of HI's reefs and marine ecosystems; large public opinion polls favor the termination of the destructive aquarium trade (recent survey is 84%).	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA note that two studies have concluded that the aquarium fishery has no significant impact on coral or the reef ecosystem.
730-3	Robert Culbertson	HI	5/4/2018	State has grounds to ban the trade in accordance with the Departments "hierarchy of uses" principle with the protecting resource from harm principle and public use and enjoyment priority coming first, followed by admitting commercial activities; case in point on p.54 of HI Island EA with the nullification of a conservation designation.	Comment noted. See responses above. The effects of the aquarium fishery on the enviroment are addressed in both FEAs.
730-4	Robert Culbertson	HI	5/4/2018	A good and thorough accounting of economic impacts separately would measure the direct cumulative costs to the state (public) for administration, enforcement, and public participation, as well as the indirect costs to the public in terms of personal and subsistence uses and the unquantifiable loss of public trust, confidence, and support.	Comment noted. The effects of the aquarium fishery on the enviroment are addressed in both FEAs. The socioeconomic impacts are discussed in Section 5.2 of both FEAs.
730-5	Robert Culbertson	HI	5/4/2018	A plea for the entrusted decision makes to take the only afforded opportunity to side with the courts, the legislature, the court of public opinion, the traditional ecological wisdom of island culture, the judgment of history, and the fish and select our preferred option of "no action."	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
731-1	Tammy Le	N/A	5/4/2018	Environmental review shows the aquarium fishery in HI is sustainable and therefore permits should be reinstated without further delay.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
732-1	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	HI	5/8/2018	DEA and the scientific basis of a finding of no significant impact adequately protect the reef fish stocks for food resource use for the Island of HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
732-2	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	HI	5/8/2018	Support management and conservation of herbivore fish, especially uhu; monitoring and conservation of kole and pakuikui are important for food resource fishing.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts of commercial aquarium collection on subsistence fishing are discussed in Section 5.3 of both FEAs.
732-3	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	HI	5/8/2018	Aware that reef fish are harvested and consumed by the Native Hawaiian and kama'aina community, and reef fish can be important cultural components; due to declining consumption, HFACT believe that sufficient stock of reef fish will exist with the reinstatement of commercial aquarium fishing permits.	Comment noted. Sections 5.3 of both FEAs conclude that subsistence fishing will not be significantly impacted by the continuation of commercial aquarium collection under the Preferred Alternative.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
733-1	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	HI	5/8/2018	DEA and the scientific basis of a finding of no significant impact adequately protect the reef fish stocks for food resource use for the Island of Oahu.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
733-2	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	HI	5/8/2018	Support management and conservation of herbivore fish, especially uhu; monitoring and conservation of kole and pakuikui are important for food resource fishing.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts of commercial aquarium collection on subsistence fishing are discussed in Section 5.3 of both FEAs.
733-3	Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc.	HI	5/8/2018	Aware that reef fish are harvested and consumed by the Native Hawaiian and kama'aina community, and reef fish can be important cultural components; due to declining consumption, HFACT believe that sufficient stock of reef fish will exist with the reinstatement of commercial aquarium fishing permits.	Comment noted. Sections 5.3 of both FEAs conclude that subsistence fishing will not be significantly impacted by the continuation of commercial aquarium collection under the Preferred Alternative.
734-1	Jessica Wooley			Would like more time to review the DEAs; 30 days is not enough.	Comment noted. The applicant prepared the FEAs in accordance with state law.
734-2	Jessica Wooley	HI	5/8/2018	DEAs reflect how the State Executive Branch has failed the people of HI and all the reef wildlife; a complete environmental review is required by law; why has the State Executive Branch failed to ensure data it collects is peer reviewed by scientists, failed to consider the science of Native Hawaiian families, refused to meet with animal cruelty groups while regularly meeting with commercial wildlife interests, failed to comply with HRS Chapter 343, failed to include public discourse, not prepare the environmental review documents themselves, failed to address the impact of the captures to any and all animals used by people for food.	Comment noted. The DEAs and FEAs were prepared in accordance with State law and disclose the effects of the proposed action on the environment. The results of this assessment is provided in both FEAs, and has been independently peer reviewed, as well as reviewed by DLNR, NMFS, and WESPAC.
734-3	Jessica Wooley	HI	5/8/2018	Overall, would like to know how these DEAs comply with all statutory provisions in the State of HI and the HI Constitution.	Comment noted. The FEAs contain the analysis that complies with applicable law.
734-4	Jessica Wooley	HI	5/8/2018	Proposed action violates numerous provisions and should be withdrawn; State Executive should stop authorizing commercial collectors to continue to capture and sell HI reef wildlife in violation of the HI Supreme Court ruling and State Law.	Comment noted. See responses provided above.
734-5	Jessica Wooley	HI	5/8/2018	Should work together to protect wildlife and create vibrant aquarium industry using research, innovation, and captive-bred concepts.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As described in the FEAs, this is based off of 18 years of collection data and the best available science.
735-1	Satoru Yamamoto, Kamihata Fish Ind.	Japan	5/5/2018	Support the aquarium trade in HI and pray that permits are restored.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
736-1	Quality Marine & Aquatropic	CA	5/4/2018	Clear evidence that our industry's collection activities are sustainable and management efforts are working.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
736-2	Quality Marine & Aquatropic	CA	5/4/2018	The ban negatively affects the marine ornamental trade and puts many people out of work.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
737-1	Aquatic Sealife	LA	5/6/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
738-1	Candace Wade	TN	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
738-2	Candace Wade	TN	5/8/2018	Don't destroy our heritage areas; fragile ecosystem.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
738-3	Candace Wade	TN	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
738-4	Candace Wade	TN	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
739-1	Ms. Penny Langley	TN	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
739-2	Ms. Penny Langley	TN	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
739-3	Ms. Penny Langley	TN	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
739-4	Ms. Penny Langley	TN	5/8/2018	Being very shortsighted to allow the reefs to be decimated by the collection of these animals for pets; HI relies heavily on tourism and these resources should be saved so they can continue to be enjoyed for many years to come.	<p>Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics the various aspects of your comment. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p> <p>In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
740-1	Mr. Keith Dane	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
740-2	Mr. Keith Dane	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
740-3	Mr. Keith Dane	HI	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
741-1	Ms. Austen Stone	CO	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
741-2	Ms. Austen Stone	CO	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
741-3	Ms. Austen Stone	CO	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
742-1	Ms. Melissa Lockyer	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
742-2	Ms. Melissa Lockyer	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>

Comment No.	Commentor	State/Location	Date Received	Comment	Response
742-3	Ms. Melissa Lockyer	HI	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
743-1	Mrs. Vivian Toellner	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
743-2	Mrs. Vivian Toellner	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
743-3	Mrs. Vivian Toellner	HI	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
743-4	Mrs. Vivian Toellner	HI	5/8/2018	Conservation: the wise use of our natural resources; please protect what makes HI special.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
744-1	Ms. Laurie Pottish	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
744-2	Ms. Laurie Pottish	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
744-3	Ms. Laurie Pottish	HI	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
745-1	Ms. Jeanie Kilgour	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
745-2	Ms. Jeanie Kilgour	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.</p>
745-3	Ms. Jeanie Kilgour	HI	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
745-4	Ms. Jeanie Kilgour	HI	5/8/2018	Dive logs show how sparse the fish populations have become in the past few years.	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
745-5	Ms. Jeanie Kilgour	HI	5/8/2018	Shocked that HI has taken such as blasé attitude towards our reef creatures and embarrassed to invite friends from the mainland to go diving on the Kona Coast.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
746-1	Mr. Murray Kilgour	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
746-2	Mr. Murray Kilgour	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
746-3	Mr. Murray Kilgour	HI	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
747-1	Ms. Lorraine Garnier	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
747-2	Ms. Lorraine Garnier	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
747-3	Ms. Lorraine Garnier	HI	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
748-1	Miss Narrissa Spies	HI	5/8/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
748-2	Miss Narrissa Spies	HI	5/8/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Impacts to cultural resources are addressed in Section 5.3 of both FEAs.
748-3	Miss Narrissa Spies	HI	5/8/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
749-1	Strictly Fish	N/A	5/6/2018	Shut down of a sustainable fishery has made introducing this wonderful hobby incredibly difficult; future generations should be able to enjoy the hobby as we have in the past.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
749-2	Strictly Fish	N/A	5/6/2018	Tropical fish industry in HI has proven to be sustainable thru extensive studies by the DLNR and NOAA.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
750-1	Aqua Dreams	MA	5/4/2018	Support the aquarium fisheries industry in HI; please accept the EA and reject the ban on HI fishing.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
751-1	Cindy DeLillo	N/A	5/4/2018	Clear evidence that our industry's collection activities are sustainable and management efforts are working.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
751-2	Cindy DeLillo	N/A	5/4/2018	Ban negatively affects the marine aquarium trade and puts a great deal of people out of work in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
752-1	Troy	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
753-1	Sherwin Balais	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
754-1	Michael Bauma	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
755-1	Brianna K. Fujimoto	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
756-1	Brisan Kalahiki	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
757-1	Joanne Lee	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
758-1	Brenadette Murakami	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
759-1	Ben Soria	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
760-1	Giszale	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
761-1	Samson	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
762-1	Jewelz	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
763-1	Bob Gregory	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
764-1	Anthony Abraham	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
765-1	Todd Muralcami	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
766-1	Victor Wade	HI	N/A	EA shows the industry is sustainable and regulated; DLNR and NOAA have concluded there are no adverse effects on the marine ecosystem.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
767-1	Jason W F Beevers	HI	5/4/2018	Fishery has proven to be sustainable for decades; please reinstate AQ licenses and restore our ability to fish in the waters of west HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
767-2	Jason W F Beevers	HI	5/4/2018	Has provided it's fishermen a stable and reliable income; jobs are extremely difficult to find and maintain in rural areas of the state.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
768-1	Hunting Farming and Fishing Association	HI	5/8/2018	Have consulted extensively with PIJAC during the development of these documents; applicant worked closely with the Senate, NOAA Fisheries, Independent Scientific Peer reviewers, and organizations such as HFFA in the review and development of these documents.	Comment noted. Section 6.0 of the FEAs outlines the agencies, organizations, and individuals consulted. In addition, the FEAs have been revised in response to public comment.
768-2	Hunting Farming and Fishing Association	HI	5/8/2018	Find the DEAs to be both thorough and accurate as noted by the independent scientific peer reviewers	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
768-3	Hunting Farming and Fishing Association	HI	5/8/2018	Comments made by the Office of Hawaiian Affairs are baseless; disagree with OHA that these long-standing fisheries that many Native Hawaiians participate in will cause adverse cultural impacts; OHA has worked with the applicant during the development of these documents.	Comment noted. Cultural impacts are assessed in Section 5.3 of both FEAs. A list of agencies, organizations, and individuals consulted with during the drafting of the DEAs and FEAs is provided in Section 6.0 of both FEAs. Both FEAs have been revised to reflect changes due to public comments received during the public comment period.
768-4	Hunting Farming and Fishing Association	HI	5/8/2018	No scientific data to support claims of cumulative impacts to the environment; OHA and other parties are attempting to avoid the use of the best available science in the management of our natural resources.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
768-5	Hunting Farming and Fishing Association	HI	5/8/2018	HFFA urges the DLNR to adopt the DEAs and to commence issuing commercial permits for the aquarium fishery; individuals in this fishery have been substantially harmed by the political and legal maneuvers of outside animal rights groups.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
769-1	Division of Aquatic Resources	HI	N/A	Pg. 14 - Provide details on the process of a specific commitment by some entity to do an updated EA on an annual basis.	Comment noted. The applicant supports full enforcement of all applicable regulations, including additional HEPA reviews if needed. As stated in Section 5.5 of the FEAs, the DLNR will reevaluate the analysis contained in the FEAs on an annual basis prior to renewal or issuance of new commercial aquarium permits, and will assess if any new information exists warranting reevaluation of this analysis.
769-2	Division of Aquatic Resources	HI	N/A	Section 4.4.1 - for all species with WHAP 2014 population estimates, the numbers represent the population only in the Open Areas.	Correct and revised. This is stated in other places, but is now also included in Section 4.4.1. The DEA also states that using the Open area populations alone, also exaggerates the underestimation.
769-3	Division of Aquatic Resources	HI	N/A	Pg. 27, 4.4.1.1 - Number of Yellow Tang represent the population in the Open Areas (30'-60' depths), shown correctly in Table 5 (pg. 55) (more specifics given).	The Hawai'i FEA has been revised to reflect that the population estimate shown in Section 4.4.1.1 reflects only the open area population.
769-4	Division of Aquatic Resources	HI	N/A	Pg.28, 4.4.1.2 - Same error as above was made for Achilles Tang (more specifics given).	The Hawai'i FEA has been revised to reflect that the population estimate shown in Section 4.4.1.2 reflects only the open area population.
769-5	Division of Aquatic Resources	HI	N/A	Pg. 33, 4.4.1.13 - Specifics given on the overall Kole population.	The Hawai'i FEA has been revised to reflect that the population estimate shown in Section 4.4.1.13 reflects only the open area population.
769-6	Division of Aquatic Resources	HI	N/A	Pg. 36, 4.4.1.19 - Black durgon are not broadcast spawners (citations and specifics given).	Section 4.4.1.19 of the Hawai'i FEA has been revised to accurately reflect black durgon reproduction.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
769-7	Division of Aquatic Resources	HI	N/A	Pg. 61, 4.4.73 - Each of the 25 WHAP sites has four transects, thus 100 transects; benthic cover and habitat structural complexity are survey by WHAP as well as CREP.	Section 4.4.7.3 of the Hawaii FEA has been revised to reflect the 4 transects per site, 100 transects total, and that benthic cover and habitat structural complexity are all recorded.
769-8	Division of Aquatic Resources	HI	N/A	Pg. 73, 5.4.1.2.1 - Multiple comments regarding Achilles Tang abundance and aquarium fishery trends in West HI, based on attached document.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA.
769-9	Division of Aquatic Resources	HI	N/A	Pg. 76, Figure 7 - Updated version of this graph is available from DAR.	The Hawaii FEA has been revised to include the updated Figure 7 provided by DAR.
769-10	Division of Aquatic Resources	HI	N/A	Pg. 80, 5.4.1.2.4 - Note: no species of Rabbitfishes are found in HI, the Hawaiian <i>Dascyllus</i> is not an herbivore.	Section 5.4.1.2.4 in the Hawaii FEA has been revised to reflect that rabbitfish are not found in Hawaii, and that the Hawaiin <i>Dascyllus</i> is not an herbivore.
769-11	Division of Aquatic Resources	HI	N/A	Pg. 81 - Bag limit specifications given.	Section 5.4.1.2.4 in the Hawaii FEA has been revised to include these bag limits.
769-12	Division of Aquatic Resources	HI	N/A	Pg. 89, 5.4.3.2 - Include reference to recently published paper on substantial reef fish catch by commercial and non-commercial fishers (citation given).	Comment noted. This reference and associated data were added to Section 5.4.3.2 in both FEAs.
769-13	Division of Aquatic Resources	HI	N/A	Pg. 91, 5.5.3.4 - Species name correction.	Section 5.4.3.4 in the Hawaii FEA has been revised to include the correct spelling of the species name, <i>Porites lobata</i> .
769-14	Division of Aquatic Resources	HI	N/A	Recommendations from the last DAR/DLNR report (Walsh 2014): 1) obtaining legislative authority for the DLNR report for real time response to emerging resource issues, 2) a limited-entry aquarium fishery should be established in West Hawaii; 3) DLNR should prioritize the adoption of a Hawaiian Administrative Rule (HAR) to require marine dealer report, 4) an effective DOCARE enforcement "presence" on the water and along coastal areas.	Comment noted.
770-1	Office of Hawaiian Affairs	HI	4/30/2018	DEA for Island of O'ahu is incomplete and does not adequately address potential significant environmental impacts; request a resubmission of a new DEA for review and public comment.	The O'ahu FEA concludes that the Preferred Alternative will not have a significant impact therefore another draft EA and comment period is not required. The commentor did not specify what additional environmental impacts should have been evaluated.
770-2	Office of Hawaiian Affairs	HI	4/30/2018	OHA is concerned that the incorrect focus on the issuance of permits and not on the action of aquarium collection pursuant to permits issued under HRS § 188-31 may lead to an incomplete assessment of environmental effects; DEA does not consider the potential impacts it may have on the environment or the cumulative impacts it may have with other fishing and non-fishing activities; does not address the social or economic impacts on industries and activities other than commercial aquarium fishing.	Comment noted. The effects of the fishery on the environment are described in the FEAs. The FEAs have been peer reviewed to insure the effects of these actions comport with avialble scientific information. Expert agencies have reviewed the analyses, and provided information upon which the analyses is based.
770-3	Office of Hawaiian Affairs	HI	4/30/2018	A new assessment each year would not be feasible and would likely preclude proper identification of the entirety of the direct, indirect, and cumulative effects of the proposed action; limited timeframe ignores the requirements of assessing indirect and cumulative impacts.	Comment noted. The FEAs explain how new information may be considered when it becomes available (see Section 5.5 of both FEAs).
770-4	Office of Hawaiian Affairs	HI	4/30/2018	The DEA describes and dicusses only the proposed action and a single, no action alternative (HAR § 11-200-10(6) cited); there are a range of potential alternatives that may be considered and that may have a less significant impact than the proposed action (various ideas given).	Comment noted. An additional alternative has been included in the FEAs for both documents analyzing conservation measures proposed by commenters.
770-5	Office of Hawaiian Affairs	HI	4/30/2018	Enforceability and the potential effectiveness of compliance mechanisms must be evaluated as part of any alternatives analysis.	Comment noted.
770-6	Office of Hawaiian Affairs	HI	4/30/2018	Almost complete lack of analysis regarding the significant potential cultural impacts of the action; recommend that the applicant apply the OEQC's Guidelines for assessing cultural impacts and consults with traditional cultural practitioners and other knowledgeable informants and sources about cultural resources, cultural practices, and the proposed action's potential impacts (more examples given).	Comment noted. The FEAs consider the cultural impacts of the action on the environment (see Sections 5.3 of both FEAs).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
770-7	Office of Hawaiian Affairs	HI	4/30/2018	OHA is concerned that the applicant's early consultation, which was limited to four agencies and only three organizations, was insufficient and incomplete; notifying the public of the availability of the DEA does not equate to consultation.	Comment noted, see responses above. The applicant coordinated with multiple organizations prior to development of the DEAs (see Section 6.5 of both FEAs). The DEAs were provided to OHA and other organizations prior to the public comment period. Public comments were carefully considered during the development of the FEAs, as evidenced by the inclusion of additional alternatives in the FEAs.
771-1	Office of Hawaiian Affairs	HI	4/30/2018	DEA for Island of Hawai'i is incomplete and does not adequately address potential significant environmental impacts; request a resubmission of a new DEA for review and public comment.	Comment noted. The FEAs evaluate the best available scientific information, and have been peer reviewed by independent scientists and agencies.
771-2	Office of Hawaiian Affairs	HI	4/30/2018	OHA is concerned that the incorrect focus on the issuance of permits and not on the action of aquarium collection pursuant to permits issued under HRS § 188-31 may lead to an incomplete assessment of environmental effects; DEA does not consider the potential impacts it may have on the environment or the cumulative impacts it may have with other fishing and non-fishing activities; does not address the social or economic impacts on industries and activities other than commercial aquarium fishing.	Comment noted. Cumulative impacts are evaluated in both FEAs, and the cumulative impact analysis has been updated in response to public comments received.
771-3	Office of Hawaiian Affairs	HI	4/30/2018	A new assessment each year would not be feasible and would likely preclude proper identification of the entirety of the direct, indirect, and cumulative effects of the proposed action; limited timeframe ignores the requirements of assessing indirect and cumulative impacts.	Comment noted. The FEAs explain how new information may be considered when it becomes available (see Section 5.5 of both FEAs).
771-4	Office of Hawaiian Affairs	HI	4/30/2018	The DEA describes and discusses only the proposed action and a single, no action alternative (HAR § 11-200-10(6) cited); there are a range of potential alternatives that may be considered and that may have a less significant impact than the proposed action (various ideas given).	Comment noted. An additional alternative has been included in the FEAs for both documents analyzing conservation measures proposed by commenters.
771-5	Office of Hawaiian Affairs	HI	4/30/2018	Enforceability and the potential effectiveness of compliance mechanisms must be evaluated as part of any alternatives analysis.	Comment noted.
771-6	Office of Hawaiian Affairs	HI	4/30/2018	Almost complete lack of analysis regarding the significant potential cultural impacts of the action; recommend that the applicant apply the OEQC's Guidelines for assessing cultural impacts and consults with traditional cultural practitioners and other knowledgeable informants and sources about cultural resources, cultural practices, and the proposed action's potential impacts (more examples given).	Comment noted. The FEAs consider the cultural impacts of the action on the environment (see Sections 5.3 of both FEAs).
771-7	Office of Hawaiian Affairs	HI	4/30/2018	OHA is concerned that the applicant's early consultation, which was limited to four agencies and only three organizations, was insufficient and incomplete; notifying the public of the availability of the DEA does not equate to consultation.	Comment noted, see responses above. The applicant coordinated with multiple organizations prior to development of the DEAs (see Section 6.5 of both FEAs). The DEAs were provided to OHA and other organizations prior to the public comment period. Public comments were carefully considered during the development of the FEAs, as evidenced by the inclusion of additional alternatives in the FEAs.
772-1	Graham Paul Knopp	HI	5/8/2018	This form of exploitation of a public resource benefits very few (aquarium fish collection provides about 0.015% of the total HI County Gross Product) but impacts a resource owned by all of the people of HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Sections 4.1 and 5.2 of each FEA address Socioeconomics.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
772-2	Graham Paul Knopp	HI	5/8/2018	Are comparing to pelagic fisheries (30% annual take is the norm), but this high take is not reasonable given the ecology of the reefs and the other pressures presently on reef ecosystems.	The FEAs do not use a standard of 30%. As stated throughout both FEAs, a take of 5% to 25% is considered to be sustainable reef fish harvest based on available research (Ochavillo and Hodgson 2006). The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population.
772-3	Graham Paul Knopp	HI	5/8/2018	Sincerely doubt a 15-year baseline, coupled with the variability of the population data, casts doubt on claims that there is any species recovery in general since the creation of the FRA; of the three species for which detailed population information is shown, see a marked depopulation in the Open Areas vs. the Fish Recovery Areas (discrepancies outlined in EA given).	The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. As discussed in the Hawai'i FEA, population trends for two of the top three collected species (Yellow Tang and Kole) show stable or increasing population trends. While the third species, Achilles Tang, has shown past decreases in population size, an alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.
772-4	Graham Paul Knopp	HI	5/8/2018	Alternatives section is inadequate; others should be discussed, such as the cultivation or captive breeding of some species, collection at other locations within the State of HI and outside the State of HI.	Additional alternatives were added to the FEAs based on public comment. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alternative proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
772-5	Graham Paul Knopp	HI	5/8/2018	Section 4.4.5 - Extremely brief summary of coral reef habitat; would be appropriate to discuss other stressors to coral reef ecosystems.	Other stressors to the coral reef ecosystems are discussed in the Cumulative Effects sections of both FEAs (see Section 5.4.3 of both FEAs).
772-6	Graham Paul Knopp	HI	5/8/2018	Section 4.4.7, pg. 57 - Statement cited, which seems to imply that FRAs have no effect on Yellow Tang populations greater than 0.6 miles away; thus, it would suggest FRAs are ineffective, unless spaced tightly.	As stated in Section 4.4.7, the Yellow Tang population within the FRAs has increased 64.5% and has not declined significantly within the open areas. In addition, as stated in Section 5.4.1.2.1, the population of Yellow Tang has increased by over 3 million within the open areas between 2014 and 2017.
772-7	Graham Paul Knopp	HI	5/8/2018	Section 4.4.7, pg. 57 - Statement cited, shows Achilles Tang are under strong and unsustainable pressure.	An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.
772-8	Graham Paul Knopp	HI	5/8/2018	4.4.7 page 57 states "The total take of reef fish by commercial and non-commercial ('recreational') fishers on other Main Hawaii Islands greatly exceeds the numbers and biomass of the fish taken by aquarium collectors." Please provide data to substantiate both these claims, or remove this statement.	The source of this statement is the DAR and is cited in the text. The actual data would need to be requested from the DAR.
772-9	Graham Paul Knopp	HI	5/8/2018	5.4.1.1 I take contention with the statement, "A minor, although, unquantifiable, population increase may occur in some species over the 12-month analysis period..." First, this extremely short evaluation of the biological impacts of the No Action Alternative only examines short-term (i.e., 12-month) impacts relative to the Preferred Alternative. Second, for several species, including Yellow Tang, Kole, and Achilles Tang, this statement may be correct for the arbitrary 12-month period. But what about the long-term? For the long-term we can expect the No Action Alternative to produce positive impacts, and for Open area populations to recover to FRA levels and densities. Please revise this paragraph to include an evaluation of the long-term biological impacts of the No Action Alternative.	The No Action Alternative in the FEAs have been revised (Section 3.1 in both FEAs and throughout Section 5.0) . Under HRS 188-31, the DLNR may issue an Aquarium Permit not longer than one year in duration; therefore, a temporal scope of one year is appropriate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
772-10	Graham Paul Knopp	HI	5/8/2018	5.4.1.2.1 The DEA quotes the DAR (2014) in stating that, "The population of Yellow Tang had increased 64.5% in the FRAs while its abundance in the open areas (areas fished by commercial aquarium fishers had not declined significantly." This statement is problematic, as it implies that populations are recovering because of FRA creation. There is no such causality demonstrated for two reasons: (1) the data do not show this because the data begin after FRA creation. There is no baseline with which to compare post-FRA populations with pre-FRA populations. (2) Causality simply cannot be proved. In the sciences we have this truism, "Correlation does not prove causality." This means that there may be other factors involved in recovery, such as a change in collection techniques, new regulations, etc. A sound scientific approach would be to note that the positive trends are suggestive of recovery after creation of the FRAs, but that it cannot be proved given the available data.	The source of this statement is the DAR and is cited in the text. In addition, population trends for Yellow Tang within the FRAs and the open areas are shown on Figure 5 in the Hawaii FEA.
772-11	Graham Paul Knopp	HI	5/8/2018	5.4.1.2.1 Table 13 (page 77) shows the Total Populations (CREP data) and not estimates of population for East Hawaii. However, Table 6 compares catch in the same areas to the estimated populations in those areas thus, this Table is inconsistent and possibly misleading.	Comment noted. East Hawaii population estimates similar to those provided in Table 6 for West Hawaii are not available because WHAP does not survey East Hawaii.
772-12	Graham Paul Knopp	HI	5/8/2018	The concept of "significance" viewed with respect to impacts to a population is troublesome and used in different contexts in this DEA. Most important is the question of what constitutes significant population impacts? In general, because this assessment does not include an assessment of ecological services performed by the White List species, it is nearly impossible to state what fraction of a species' population is significant. It's my personal judgement that removal of 1-2% of a total species population is significant, whether measure over the entire State or in the WHRFMA. The obvious impacts to the populations of Yellow Tang, Kole, and Achilles Tang appear to be far beyond this level, and it is reasonable to expect that there are profound ecological impacts due to the population reductions of these species.	As stated throughout both FEAs, a take of 5% to 25% is considered to be sustainable reef fish harvest based on available research (Ochavillo and Hodgson 2006). The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. Given the conclusions in the FEAs that commercial aquarium collection is not significantly impacting the populations of any of the White List Species on the island of Hawai'i or the top 20 collected species in O'ahu, the species are anticipated to continue to serve their functions in the ecosystem.
772-13	Graham Paul Knopp	HI	5/8/2018	Section 5.4, Page 92, paragraph 1 states, "The extent and severity of impacts to White List Species from climate change have been ongoing for decades and are expected to increase in the foreseeable future. If environmental fluctuations resulting from climate change...or other natural or human factors, change habitat conditions, fishing mortality may present a higher risk to some White List and non-White List species and SGCN." In spite of the conservative tone of this statement, it is clear that stressors on coralreefs and reef species are increasing. Thus this is an appropriate time to adopt a policy of greater conservation and protection of reef species, not to allow their continued exploitation for a select few (<60 individuals).	Comment noted. Other stressors to the coral reef ecosystems are discussed in the Cumulative Effects sections of both FEAs (see Section 5.4.3 of both FEAs).
772-14	Graham Paul Knopp	HI	5/8/2018	Section 5.5. Page 92, paragraph 2 states, "1. The Preferred Alternative does not involve an irrevocable commitment or loss or destruction or cultural resource." This document has not made the case that this is a true statement. In fact, as I have pointed out, there is evidence to the contrary, that aquarium fish collection is causing ecological harm.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. s stated throughout both FEAs, a take of 5% to 25% is considered to be sustainable reef fish harvest based on available research (Ochavillo and Hodgson 2006). Impacts to cultural resources are discussed in Section 5.3 of both FEAs, which conclude that no significant impacts would occur under the Preferred Alternative.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
772-15	Graham Paul Knopp	HI	5/8/2018	Page 92, paragraph 3 states, "Based on the results of the Tissot and Hallacher (2003) study and the 15 years of data collected and analyzed by the DAR (2018c), no significant direct impacts to reef habitat due to commercial aquarium fishing would occur under the preferred alternative." This is a bold-faced misrepresentation of the claims that this document does make, as the impact analysis does not evaluate ecological impacts beyond population impacts, which, by themselves, appears to be significant in some cases. The impact assessment performed by this DEA discusses two data sets only, and does not examine ecological impacts at all beyond these population numbers. Therefore, I contend that the Preferred Alternative may well involve an irrevocable commitment or loss or destruction of natural resources.	Section 5.4.1.2.4 referenced in this comment is specifically addressing impacts to reefs as a result of commercial aquarium collection. Both references in this statement compared reef habitat between areas open and closed to aquarium fish collection (beyond fish population numbers). The paper referenced here (Tissot and Hallacher 2003) concluded that there were no significant differences in damaged coral between control and collected sites (i.e., sites where aquarium collection occurs) to indicate the presence of destructive fishing practices. In addition, they found no increases in the abundance of macroalgae where the abundance of herbivores was reduced by aquarium collecting.
772-16	Graham Paul Knopp	HI	5/8/2018	Population data shown for Achilles Tang, Yellow Tang, and Kole show significant Open Area depletion relative to the FRA, so the preferred alternative would appear to curtail the range of beneficial uses of the environment for recreational ocean users.	As illustrated in Figures 5-7 of the Hawaii FEA, the differences in population density between FRAs and open areas occurred even prior to closure of the FRAs, indicating that the differences in density are due to factors other than commercial aquarium collection.
772-17	Graham Paul Knopp	HI	5/8/2018	DEA cites two studies in Significance Criterion 7; Tissot and Hallacher (2003) is limited utility because it examined four locations at one point in time; could not find DAR (2018c) citation and doubt it strengthens the argument.	The best available scientific data concerning impacts to coral reefs as a result of commercial aquarium collection were used in development of the FEAs. Peer reviewers confirm data are accurate.
772-18	Graham Paul Knopp	HI	5/8/2018	Ocean fish are an important food resource for HI families, but pure resource exploitation is not an accepted cultural practice.	Impacts to cultural resources, including subsistence fishing, are evaluated in Section 5.3 of both FEAs. Both FEAs conclude no significant impacts to subsistence fishing as a result of the Preferred Alternative.
773-1	Carol Davies	HI	5/8/2018	DLNR/DAR are ignoring everyone, including the scientists and public opinion, just to serve the aquarium industry.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Section 6.0 in the FEAs outlines the organizations, agencies, and individuals contacted, as well as the distribution of the draft EAs. In addition, the FEAs were updated in response to public comments.
773-2	Carol Davies	HI	5/8/2018	What happened to the Gold Coast where there was such an abundance of Yellow Tang?	Comment noted. Section 5.4.1.2.1 of the Hawaii FEA includes information from the DAR illustrating increasing populations of Yellow Tang in West Hawaii within all areas, including open areas (see Table 10 and Figure 5). The high fecundity of Yellow Tang is discussed in Section 5.4.1.2.5 of the Hawai'i FEA and Section 5.4.1.2.6 of the O'ahu FEA. Both FEAs conclude no significant impacts on Yellow Tang.
774-1	Inga Gibson	HI	5/8/2018	Questions: Where is the population and baseline data for each of the more than 250 species and for each island and coastal area? What specific areas are these animals currently being collected? Where is the data for each species seeding, spawning, and dispersal ranges and routes statewide? What groups, organizations, or individuals were consulted from the native Hawaiian community, as well as the animal welfare community, and what information was asked and what was the response? How much and how many are each of HI's fish and invertebrates sold for and who are they sold to? What bag and size limits are being proposed for each species and why/why not? Also asking for details on shipping and take for each species.	Comment noted. The analysis in the FEAs focuses on the 40 White List species in Hawai'i (which are the only species allowed to be collected in the WHRFMA, where the majority of collection occurs), and on the 20 most collected species in O'ahu (which make up 80% of all fish collected in the past 18 years). As described in the FEAs, collection occurs within areas open to aquarium collection (i.e., no collection is allowed in certain areas, described in the FEAs). Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs. The total number of fish collected is summarized in Table 3 in the O'ahu FEA and in Table 8 in the Hawai'i FEA. Average collection by species is summarized in Table 9 of the O'ahu FEA and Table 15 of the Hawai'i FEA. The economics associated with this collection is summarized in Section 5.2 of both FEAs.
775-1	Bill Stockly	HI	5/8/2018	DEA includes all available scientific information on the effects of the Hawaii aquarium fishery on the environment; conclusion is well-supported.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
775-2	Bill Stockly	HI	5/8/2018	Management and operation of HI's fishery is outstanding and sets the standard for the rest of the world; scientific opinion supports the sustainability of the HI fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
775-3	Bill Stockly	HI	5/8/2018	The three main species of landed fish are harvested at a rate of 5% or less of the overall population, which has been determined to be on the low end of what published literature considers to be a sustainable harvest (Ochavillo and Hodgson 2006); the remaining permitted species are harvested at less than 1% of overall population.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
775-4	Bill Stockly	HI	5/8/2018	Positive results shown since enactment of new regulations.	Comment noted. Section 5.4.1.2.1 of the Hawai'i FEA summarizes the results shown since enactment of new regulations in recent years.
775-5	Bill Stockly	HI	5/8/2018	Suggest that the HEPA review period coincide with the five year report to the legislature.	Comment noted. The Applicant agrees with this comment.
775-6	Bill Stockly	HI	5/8/2018	Request the advancement and restoration of commercial licenses and allowing use of fine mesh net as soon as possible.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
776-1	Jennifer Valentine	N/A	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
776-2	Jennifer Valentine	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
776-3	Jennifer Valentine	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
776-4	Jennifer Valentine	N/A	5/7/2018	The aquarium trade is a leading cause of reef devastation and it must be curtailed.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
776-5	Jennifer Valentine	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
777-1	Gina Bates	N/A	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
777-2	Gina Bates	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
777-3	Gina Bates	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
777-4	Gina Bates	N/A	5/7/2018	Coral reefs are in serious danger due to climate issues and pollution; since 1976, over 60 million reef fish and creatures have been taken from HI; end this appalling assault on marine life and reefs.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. Cumulative impacts from other souches (including climate change) are addressed in Section 5.4.3 of both FEAs.
777-5	Gina Bates	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
778-1	Dave Kisor	HI	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
778-2	Dave Kisor	HI	5/7/2018	Specific concerns about these species: Communities of reef species have been disrupted and the balance has been altered, Marine life threatened with local extinction.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
778-3	Dave Kisor	HI	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Puna.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
778-4	Dave Kisor	HI	5/7/2018	All organisms help to maintain the reef; large percentage of fish do not make the journey alive.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
778-5	Dave Kisor	HI	5/7/2018	People should go the digital route because digital fish don't die and require replacement.	Comment noted. The FEAs analyze the impacts of commercial aquarium collection. The FEAs conclude no significant impact from commercial aquarium collection.
778-6	Dave Kisor	HI	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
779-1	Timothy Mullen	N/A	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
779-2	Timothy Mullen	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
779-3	Timothy Mullen	N/A	5/7/2018	Citing environmental, cultural, and ethical concerns, 90% of HI residents want more restrictions on the trade and full 83% want it banned altogether.	Comment noted. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
779-4	Timothy Mullen	N/A	5/7/2018	Aquarium trade wants nothing more than to keep intact HI's position as the world's third largest supplier of wild marine life for U.S. household aquariums, with more fish taken than from Australia's Great Barrier Reef.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
779-5	Timothy Mullen	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
780-1	Marilyn Evenson	N/A	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
780-2	Marilyn Evenson	N/A	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
780-3	Marilyn Evenson	N/A	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
780-4	Marilyn Evenson	N/A	5/8/2018	Reefs are slowly but surely deteriorating; time is running out to fix oceans/coral reefs.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
780-5	Marilyn Evenson	N/A	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
781-1	Nina Monasevitch	HI	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
781-2	Nina Monasevitch	HI	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
781-3	Nina Monasevitch	HI	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Lanikai/Kailua, Leeward, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
781-4	Nina Monasevitch	HI	5/8/2018	Catastrophic decimation of ocean life since 1978; aquarium collecting having huge impact on the health of the reefs and marine ecosystem.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
781-5	Nina Monasevitch	HI	5/8/2018	Ethically wrong and without a healthy ocean, there are no healthy people, planet, or profits.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
781-6	Nina Monasevitch	HI	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
782-1	Diane Ware	HI	5/8/2018	Concerned about the following species: Yellow Tangs, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, Snowflake eels, Flame Wrasses, Shrimps, HI Turkeyfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
782-2	Diane Ware	HI	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
782-3	Diane Ware	HI	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, Hilo, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
782-4	Diane Ware	HI	5/8/2018	Noticed decreasing numbers and diversity of fishes in early 2000's; where is the oversight and accountability when 600 tang are found dead in trash cans?	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>Yellow Tang are already regulated on both islands with bag limits and size limits.</p>
782-5	Diane Ware	HI	5/8/2018	This is rape and destruction for the benefit of a few with the collusion of DLNR and the State.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
782-6	Diane Ware	HI	5/8/2018	Ban on collection and switch to cultivated reef fish.	Comment noted.
782-7	Diane Ware	HI	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
783-1	Tamara Paltin	HI	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
783-2	Tamara Paltin	HI	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
783-3	Tamara Paltin	HI	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, Ka'u, Puna, Hilo, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
783-4	Tamara Paltin	HI	5/7/2018	All of West Maui has lost the abundance and diversity of fish, limu, etc.	Comment noted. Commercial aquarium collection on the Island of Maui is not covered by either FEA.
783-5	Tamara Paltin	HI	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
784-1	Donna Knipp	N/A	5/7/2018	Concerned about the following species: Butterflyfish, All top 20 species taken on Oahu, All White List Species Taken in West Hawaii, HI Turkeyfish.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
784-2	Donna Knipp	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
784-3	Donna Knipp	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
784-4	Donna Knipp	N/A	5/7/2018	Citing environmental, cultural, and ethical concerns, 90% of HI residents want more restrictions on the trade and full 83% want it banned altogether.	Comment noted. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
784-5	Donna Knipp	N/A	5/7/2018	Aquarium trade wants nothing more than to keep intact HI's positionasthe world's third largest supplier of wild marine life for U.S. household aquariums, with more fish taken than from Australia's Great Barrier Reef.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
784-6	Donna Knipp	N/A	5/7/2018	If EAs are accepted, HI's marine life and coral reefs could be depleted and degraded to the point of no return.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
784-7	Donna Knipp	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
785-1	Angie Ali	HI	5/8/2018	Concerned about the following species: All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
785-2	Angie Ali	HI	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
785-3	Angie Ali	HI	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Hilo.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
785-4	Angie Ali	HI	5/8/2018	Have seen reefs completely destroy in the last five years in Hilo's four mile area.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
785-5	Angie Ali	HI	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
786-1	Nancy Beavers	N/A	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
786-2	Nancy Beavers	N/A	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
786-3	Nancy Beavers	N/A	5/8/2018	90% of HI residents want more restrictions on the trade and 83% want it banned.	Comment noted. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
786-4	Nancy Beavers	N/A	5/8/2018	Aquarium trade wants nothing more than to keep intact HI's position as the world's third largest supplier of wild marine life.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
786-5	Nancy Beavers	N/A	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
787-1	Mary Jo Morrow	HI	5/8/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
787-2	Mary Jo Morrow	HI	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
787-3	Mary Jo Morrow	HI	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Shore, Lanikai/Kailua.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
787-4	Mary Jo Morrow	HI	5/8/2018	Sacrificing tourism economy; livelihood depends on the health of our oceans and reefs.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
787-5	Mary Jo Morrow	HI	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
788-1	Tracy Marotta	N/A	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
788-2	Tracy Marotta	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
788-3	Tracy Marotta	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
789-1	Kelly Henderson	N/A	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
789-2	Kelly Henderson	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
789-3	Kelly Henderson	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
790-1	Michael Schoenfeld	HI	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Moorish Idols.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
790-2	Michael Schoenfeld	HI	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
790-3	Michael Schoenfeld	HI	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Maui/Molokai/Lanai, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
790-4	Michael Schoenfeld	HI	5/8/2018	Have seen reefs decimated by the aquarium trade and recover when protected; most fish die in transit; not worth the profit of a few greedy aquarium trade collectors to ruin the future of HI's natural and treasured environment.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
790-5	Michael Schoenfeld	HI	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
791-1	Amy Harlib	N/A	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
791-2	Amy Harlib	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced healthy and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
791-3	Amy Harlib	N/A	5/7/2018	Urgest to preserve and protect biodiversity of all ecosystems.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
791-4	Amy Harlib	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
792-1	Alma McGoldrick	HI	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Snowflake eels, Flame Wrasses, Moorish Idols, Angelfishes, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
792-2	Alma McGoldrick	HI	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conlude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
792-3	Alma McGoldrick	HI	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Lanikai/Kailua, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
792-4	Alma McGoldrick	HI	5/8/2018	Over 50 years, diminished fish populations; only areas that still have many fish are the reserves.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
792-5	Alma McGoldrick	HI	5/8/2018	Laws against taking coral, sand, sea cucumbers, etc, so why would people be allowed to steal fish; reefs are suffering from warming and need the reef fish to clean them of algae.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
792-6	Alma McGoldrick	HI	5/8/2018	Let the fishermen use their boats to take tourists to see the fish instead.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
792-7	Alma McGoldrick	HI	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
793-1	Heather Mueller	HI	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
793-2	Heather Mueller	HI	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
793-3	Heather Mueller	HI	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
793-4	Heather Mueller	HI	5/7/2018	The reef and fish must be protected and stopping aquarium fishing is a must.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
793-5	Heather Mueller	HI	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
794-1	Sara S.	N/A	5/7/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
794-2	Sara S.	N/A	5/7/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
794-3	Sara S.	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
794-4	Sara S.	N/A	5/7/2018	90% of HI residents want more restrictions on the trade and 83% want it banned.	Comment noted. Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.
794-5	Sara S.	N/A	5/7/2018	Aquarium trade wants nothing more than to keep intact HI's position as the world's third largest supplier of wild marine life.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
794-6	Sara S.	N/A	5/7/2018	HI reef simply cannot sustain the current levels of tourism, diving, snorkeling, industrial damage, water runoff, and excessive fish trade.	Comment noted. The FEAs conclude no significant impacts from commercial aquarium collection. Cumulative impacts from other sources are discussed in Section 5.4.3 of both FEAs.
794-7	Sara S.	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
795-1	A.L. Steiner	N/A	5/7/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
795-2	A.L. Steiner	N/A	5/7/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
795-3	A.L. Steiner	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Hilo, Kauai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
795-4	A.L. Steiner	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
796-1	Tessa Arguijo	HI	5/8/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
796-2	Tessa Arguijo	HI	5/8/2018	Specific concerns about these species: Species abundance has been significantly reduced, Species I once encountered are missing, Economic benefits are curtailed by reduced health and beauty of our reefs, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
796-3	Tessa Arguijo	HI	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: South Kona, Hawaii Kai, Kaneohe/Windward, Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
796-4	Tessa Arguijo	HI	5/8/2018	Been concerned for many years that the fish population of many areas has been more diminished; only areas that still have fish are the reserves.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
796-5	Tessa Arguijo	HI	5/8/2018	Laws against taking coral, sand, sea cucumbers, etc, so why would people be allowed to steal fish; reefs are suffering from warming and need the reef fish to clean them of algae.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. As noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
796-6	Tessa Arguijo	HI	5/8/2018	People in the aquarium trade need to put their skills and resources to a different use that will benefit themselves and the natural resources; use boats to take tourists to see the fish.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
796-7	Tessa Arguijo	HI	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
797-1	Carol Dencker	N/A	5/7/2018	Concerned about the following species: All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
797-2	Carol Dencker	N/A	5/7/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
797-3	Carol Dencker	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Hawaii Kai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
797-4	Carol Dencker	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
797-5	Carol Dencker	N/A	5/7/2018	You know the right thing to do is care for our animals and plants and mother earth.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
798-1	Keomailani Van Gogh	N/A	5/7/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhii, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
798-2	Keomailani Van Gogh	N/A	5/7/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
798-3	Keomailani Van Gogh	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Puna, Hilo, Kaneohe/Windward, North Shore, Leeward.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
798-4	Keomailani Van Gogh	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
798-5	Keomailani Van Gogh	N/A	5/7/2018	Additional assessment should include studying the full impact of the extinction of any one or more of the species of fish; also, the state should do the EA/EIS.	Comment noted.
798-6	Keomailani Van Gogh	N/A	5/7/2018	Cultural impacts of our reef and fish stated in EA are totally inadequate.	Impacts to cultural resources, including subsistence fishing, are evaluated in Section 5.3 of both FEAs. Both FEAs conclude no significant impacts to subsistence fishing as a result of the Preferred Alternative.
799-1	Jay Herrera	N/A	5/7/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
799-2	Jay Herrera	N/A	5/7/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
799-3	Jay Herrera	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kohala, Puna, Hilo, Hamakua, South Kohala.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
799-4	Jay Herrera	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
799-5	Jay Herrera	N/A	5/7/2018	Bruce Anderson gave a speech in Kona about protecting coral by banning spearfishing and throw/lay nets used by locals to feed their families; many Kanaka Maoli live below or near the poverty line and supplement their diets; one could assume that the DLNR's mission is to protect corporate profits and to violate the rights of Native Hawaiians.	Comment noted. Section 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA note that two studies have concluded that the aquarium fishery and aquarium fish collection practices have no significant impact on coral or the reef ecosystem. Impacts on subsistence fishing are discussed in Section 5.3 of both FEAs.
800-1	Jonathan Kaalekahi	N/A	5/7/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
800-2	Jonathan Kaalekahi	N/A	5/7/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
800-3	Jonathan Kaalekahi	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
800-4	Jonathan Kaalekahi	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
800-5	Jonathan Kaalekahi	N/A	5/7/2018	Aquarium reef trade and commercial fishing will permanently impact our reefs ecosystems to a point beyond repair and need to be stopped immediately.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Cumulative impacts of commercial fishing are addressed in Section 5.4.3 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
801-1	Pono Hui	N/A	5/7/2018	Concerned about the following species: Yellow Tang, Snowflake Eels and other puhi, Paku'ikui, Pufferfishes, Butterflyfishes, Cleaner Wrasses and other hinalea, All Top 20 species taken on Oahu, kole and other surgeonfishes, All West Hawaii White List Species, Hermit crabs, Shrimps, Angelfishes, All species occurring only in Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
801-2	Pono Hui	N/A	5/7/2018	Specific concerns about these species: The real possibility that future generations may not encounter these species, The natural beauty of coral reefs is diminished, Species I once encountered are missing, Species abundance has been significantly reduced, Communities of reef species have been disrupted & the balance has been altered, Cultural benefits are curtailed by altered balance, reduced health & beauty of our reefs, Reduced biodiversity diminishes cultural and educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
801-3	Pono Hui	N/A	5/7/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka`u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui / Molokai / Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
801-4	Pono Hui	N/A	5/7/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
801-5	Pono Hui	N/A	5/7/2018	Fish populations in our area have definitely been depleted, including the district of N. Kohala, specifically Kawaihae and Kawaihae'uka/Hoepa.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
801-6	Pono Hui	N/A	5/7/2018	Whole heartedly against any form of trop diving/aquarium fish collection in our areas and any other for that matter.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
802-1	Jace Hilton	HI	5/7/2018	Support the aquarium industry in HI; not damaging the oceans we're collecting, and not nearly as much as commercial fisherman.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
803-1	Alvaro Gonzalez Rivas	Singapore	5/8/2018	HI model is an example of how sustainable aquarium fishing practices should be done; banning may incentivize other places to continue to over exploit more reefs.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
803-2	Alvaro Gonzalez Rivas	Singapore	5/8/2018	Doubt that there's room for improvement, but hope you and your colleague reconsider your decision and allow the aquarium industry to continue to be leader.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
804-1	Marie Aguilar	HI	5/5/2018	With any resource being sold to an out of state buyer, we should have been obtaining the actual not estimated number of fish being sent; fish collectors give numbers that are never verified and the number of endangered species are never recorded or counted because its illegal.	Comment noted. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
804-2	Marie Aguilar	HI	5/5/2018	State of HI has an obligation to have an EIS; permits were given out improperly; study submitted has flaws and errors and should not be used, no information regarding the length of the study; recommend that there is non issuance of any permits until an EIS is conducted and the public is given the results - need protection for a four or five year period to recover.	Comment noted. The FEAs evaluate the best available scientific information, and have been peer reviewed by independent scientists and agencies. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
804-3	Marie Aguilar	HI	5/5/2018	HI will turn into a place where visitors will travel to other oceanic global places that protect their natural resources.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
804-4	Marie Aguilar	HI	5/5/2018	Population of reef fish has declined 1988-2018; significant impact on fish population by fish collectors on Oahu and HI Island.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
804-5	Marie Aguilar	HI	5/5/2018	Fish collectors are capable of finding other means of employment; jobs are plentiful in tourism related areas.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
805-1	Penny Lane	N/A	5/7/2018	Given the limited population counts and study available, the Flame Wrasse and Bandit Angelfish need special urgent attention from DAR; depth range should not be a free pass for the collectors to whatever quantities and species they want to.	As stated in Section 1.2.3, a bag limit for Bandit Angelfish of 2 per day is already in place on Oahu. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
805-2	Penny Lane	N/A	5/7/2018	Oahu needs to implement a model of the West HI Regional Fishery Management Area to ensure sustainability of the fishery for the future.	An additional alternative was added in the O'ahu FEA. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
805-3	Penny Lane	N/A	5/7/2018	Support any managed fisheries backed by science and would suggest the following points for Oahu: 35% of the coast shut down to the aquarium fishery, white list of allowable species (Table 4), permit requiring vessel and gear labeling and registration, ongoing studies of the white list species, no take on the aquarium species that do not have fish counts and surveys, evaluating catch limits on the Yellow Tang (21.1% is high), no take of invertebrates, sharks, eels and rays, prohibit night collecting.	Comment noted. An additional alternative was added in the O'ahu FEA. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
806-1	Phil Mosher	HI	5/4/2018	Report did not indicate the total number of fish observed.	The FEAs did not include study at the 228 sites on Oahu or the 256 sites on Hawaii. Those sites are referring to CREP data, and the only data the Applicant had available for analysis in the FEA from these sites was the calcaulted densities provided by CREP.
806-2	Phil Mosher	HI	5/4/2018	Actual catch could be much higher, since only 68 permits reported their catch and the DLNR never check up on collector's catches.	Comment noted. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.
806-3	Phil Mosher	HI	5/4/2018	A conflict of interest since the Pet Industry Joint Advisory Council's mission is to further the goals of fish collectors.	Comment noted. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.
806-4	Phil Mosher	HI	5/4/2018	EA was not informative about the issue of fish death during collection and fish death after they are shipped.	Because mortality post-collection is not anticipated to change from current conditions, it is not anticipated that this factor will alter the estimated collection numbers.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
806-5	Phil Mosher	HI	5/4/2018	Kona, where most of the Yellow Tang are collected, has a delicate ecosystem; was widespread coral bleaching incident in 2015 and have strain on them from tourists and locals.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. These datasets predate the period at issue. Peer reviewers confirm data are accurate.
806-6	Phil Mosher	HI	5/4/2018	Comparing economics of aquarium fishing and tourist industry (numbers given).	Comment noted. The impacts of aquarium fish collection on socioeconomics, as well as a discussion of tourism in Hawai'i, is included in Section 5.2 of both FEAs.
806-7	Phil Mosher	HI	5/4/2018	Notable decline in fish populations since 1988.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
806-8	Phil Mosher	HI	5/4/2018	Please require an EIS to cover several years of data and consider more cultural impacts, as well as the effects of global warming, coral bleaching, etc.	The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required. Cultural impacts are evaluated in Section 5.3 of both FEAs. The cumulative impacts of global warming and coral bleaching are discussed in Section 5.4.3 of both FEAs.
807-1	Eric Moreno	N/A	5/7/2018	Cannot support the EA conclusions, data, nor their "preferred alternative"; bias in preparation of the EAs.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The FEA concludes that the Preferred Alternative will not have a significant impact. The applicant prepared the FEAs in accordance with state law. As noted in Section 1.2.2 of the FEA, the HEPA process has two separate procedural tracks - agency actions and applicant actions. The Supreme Court of Hawai'i concluded that aquarium collection pursuant to permits issued under HRS § 188-31 is an applicant action that requires agency approval. Therefore, an applicant prepared EA is appropriate.
807-2	Eric Moreno	N/A	5/7/2018	Lack complete data and only calculate 25% take because of the lack of data doesn't allow for calculating a different higher percentage.	Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)
807-3	Eric Moreno	N/A	5/7/2018	Must crack down on and recognize that a certain number of fish are being caught illegally.	Comment noted. The applicant supports full enforcement of all applicable regulations. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.
807-4	Eric Moreno	N/A	5/7/2018	It's possible that with tourists, pollution, environment factors, and ocean climate change that these habitats are already under strain and is compounded by the fish collection; reefs could also be damaged by the illegal use of cyanide or other chemicals and the use of weights to be able to climb/walk over the reef.	Comment noted. The applicant supports full enforcement of all applicable regulations. As noted in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors. Cumulative impacts, including tourism and climate change, are discussed in Section 5.4.3 of the FEAs.
807-5	Eric Moreno	N/A	5/7/2018	My conservative calculations, based on this drafts estimates, would put the sustainability numbers far less than this draft suggests.	Comment noted. As stated throughout both FEAs, a take of 5% to 25% is considered to be sustainable reef fish harvest based on available research (Ochavillo and Hodgson 2006).
807-6	Eric Moreno	N/A	5/7/2018	Point not addressed enough is the farming in captivity instead of collecting in reefs, as well as methods of collecting larval fish.	Comment noted. The FEAs analyze the impacts of commercial aquarium collection. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
807-7	Eric Moreno	N/A	5/7/2018	Consider the tourism industry; reef fish are natural resources for everyone and should not be exploited nor carelessly gambled with.	<p>Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).</p> <p>In addition, as noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
807-8	Eric Moreno	N/A	5/7/2018	If it is concluded that commercial reef fishing is sustainable, cap the number of fish per species and collect revenue from the permits to be earmarked for enforcement.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA discusses existing regulations, including the White List and existing bag limits, in Section 1.2. The O'ahu FEA discusses existing regulations, including bag and size limits, in Section 1.2.3. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu.</p>
808-1	Karin Keckeis	N/A	5/8/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	<p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
808-2	Karin Keckeis	N/A	5/8/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.</p>
808-3	Karin Keckeis	N/A	5/8/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
808-4	Karin Keckeis	N/A	5/8/2018	As a biologist, marine wildlife admirer and HI visitor, I am very concerned about the threats to HI's reefs by the worldwide aquarium trade: unnaturally diminished biodiversity and loss of species.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
808-5	Karin Keckeis	N/A	5/8/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
809-1	199799997	N/A	4/28/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
810-1	Mark Russell	HI	4/29/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
810-2	Mark Russell	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.</p>
810-3	Mark Russell	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Waikiki/Diamond Head, Kaneohe/Windward, North Shore, Leeward.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
810-4	Mark Russell	HI	4/29/2018	Disappointed at the lack of marine life near North Shore.	<p>Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
810-5	Mark Russell	HI	4/29/2018	Would love to see a fishing license introduced and the money raised put back into helping sustainability.	Comment noted. The socioeconomic impacts of commercial aquarium fishing, including the reinvestment of license fees, is discussed in Section 5.2 of both FEAs.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
810-6	Mark Russell	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
811-1	Natalie Parra	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
811-2	Natalie Parra	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
811-3	Natalie Parra	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Ewa.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
811-4	Natalie Parra	HI	4/29/2018	In awe of how barren HI is; fish population decline has become so bad that when ever I see a yellow tang I actually get excited because it's no longer that common.	Comment noted. Section 5.4.1.2.1 of the Hawaii FEA includes information from the DAR illustrating increasing populations of Yellow Tang in West Hawaii within all areas, including open areas (see Table 10 and Figure 5). Collection of Yellow Tang was found to have a less than significant impact in both FEAs.
811-5	Natalie Parra	HI	4/29/2018	Also worried about HI's small and juvenile sharks, especially scalloped hammerhead shark (numerous citations given).	Comment noted. No shark species are on the White List in the WHRFMA. In addition, none of these species are within the top 20 collected species in O'ahu.
811-6	Natalie Parra	HI	4/29/2018	Truly don't believe the quick profits of a small goup of people are worth endangering HI's reefs and economic income they provide from tourists.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Sections 4.1 and 5.2 of each FEA addresses Socioeconomics, including tourism. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
811-7	Natalie Parra	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
812-1	Paula Alcoseba	N/A	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
812-2	Paula Alcoseba	N/A	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
812-3	Paula Alcoseba	N/A	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Kaneohe/Windward, Lanikai/Kailua, North Shore, Leeward, Ewa, Maui/Molokai/Lanai, Kauai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
812-4	Paula Alcoseba	N/A	4/29/2018	Resources are not infinite; disrupts the balance of the ecosystem; already vulnerable to climate change, pollution, habitat destruction, etc.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Cumulative impacts from other sources, including climate change, are discussed in Section 4.5.3 of both FEAs.
812-5	Paula Alcoseba	N/A	4/29/2018	Need to do more research in breeding captive fish instead of taking them from the wild	Comment noted. The FEAs analyze the impacts of commercial aquarium collection. The FEAs conclude no significant impact from commercial aquarium collection.
812-6	Paula Alcoseba	N/A	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
813-1	Rachel Silverman	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
813-2	Rachel Silverman	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs concludue no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
813-3	Rachel Silverman	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, Ka'u, North Kohala, Puna, Hilo, Hamakua, South Kohala, Waikiki/Diamond Head, Hawaii Kai, Maui/Molokai/Lanai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
813-4	Rachel Silverman	HI	4/29/2018	Only a few people are making a meager salary from this and it is stealing resources from the majority of HI residents.	Comment noted. Socioeconomics are discussed in Section 4.1 and Section 5.2 of both FEAs.
813-5	Rachel Silverman	HI	4/29/2018	Studies of no damage are inaccurate.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding reef damage. Peer reviewers confirm data are accurate.
813-6	Rachel Silverman	HI	4/29/2018	Trust you to be strong and faithful to all of HI, not just a few people who choose to be callous and selfish with our natural resources; against the collection of reef fish for aquariums.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
813-7	Rachel Silverman	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
814-1	Jason Murray	HI	4/29/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, Surgeonfishes, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).

Comment No.	Commentor	State/Location	Date Received	Comment	Response
814-2	Jason Murray	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
814-3	Jason Murray	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Kona, South Kona, North Kohala, Puna, Hilo, South Kohala, Waikiki/Diamond Head, Maui/Molokai/Lanai.	Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
814-4	Jason Murray	HI	4/29/2018	Fish belong to the ecosystem; ran an aquarium store for 10 years but never sold saltwater fish because they are not sustainable nor necessary.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
814-5	Jason Murray	HI	4/29/2018	Reefs are having enough trouble with global warming.	Comment noted.The cumulative impacts of global warming and coral bleaching are discussed in Section 5.4.3 of both FEAs.
814-6	Jason Murray	HI	4/29/2018	HI makes its money from tourists seeking these fish.	Comment noted. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
814-7	Jason Murray	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
815-1	Gael Norrington	N/A	4/29/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
815-2	Gael Norrington	N/A	4/29/2018	Specific concerns about these species: DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
815-3	Gael Norrington	N/A	4/29/2018	As a former aquarium keeper, I know well that nearly all of the fish taken die within a short while; see the decline in the health of HI's reefs.	<p>Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)</p>
815-4	Gael Norrington	N/A	4/29/2018	Hope it is possible to support reef ecology and to defend these wild populations against being sacrificed for human greed and entertainment.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.</p>
815-5	Gael Norrington	N/A	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	<p>Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.</p>
816-1	Alison Asejo	HI	4/29/2018	Concerned about the following species: All top 20 species taken on Oahu.	<p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
816-2	Alison Asejo	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, Economic benefits are curtailed by reduced health and beauty of our reefs, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	<p>Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomics, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.</p>
816-3	Alison Asejo	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Puna, Hilo, Hamakua, Waikiki/Diamond Head, Kaneohe/Windward, Lanikai/Kailua.	<p>Comment noted. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLCD, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
816-4	Alison Asejo	HI	4/29/2018	Have noticed a big difference in the fish over the last ten to fifteen years; also notice patches of reef that previously were bustling that are now barren.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
816-5	Alison Asejo	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
817-1	Jordan Waltz	N/A	4/29/2018	Concerned about the following species: All top 20 species taken on Oahu, All White List Species Taken in West Hawaii.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
817-2	Jordan Waltz	N/A	4/29/2018	Specific concerns about these species: Communities of reef species have been disrupted and the balance has been altered, Reduced biodiversity diminishes educational value, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs conclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
817-3	Jordan Waltz	N/A	4/29/2018	Knowing how high the mortality rates are for marine fish during capture, transport, and acclimation, I ask you do not accept these questionable Eas.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. s stated throughout both FEAs, a take of 5% to 25% is considered to be sustainable reef fish harvest based on available research (Ochavillo and Hodgson 2006).
817-4	Jordan Waltz	N/A	4/29/2018	Preserving the reef and fish will kep tourism coming.	Comment noted. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs. Sections 4.1 and 5.2 of each FEA addresses Socioeconomics. In regards to tourism, Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. Total spending by visitors to the Hawaiian Islands increased 5.3% to a new high of \$15.91 billion (HDBEDT 2017).
817-5	Jordan Waltz	N/A	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
818-1	Dallas Etzel	HI	4/29/2018	Concerned about the following species: All top 20 species taken on Oahu.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
818-2	Dallas Etzel	HI	4/29/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Marine life threatened with local extinction, The real possibility that future generations may not encounter these species.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
818-3	Dallas Etzel	HI	4/29/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: North Shore.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.
818-4	Dallas Etzel	HI	4/29/2018	Island of Oahu has been overfished for a long time; sunscreen and other things kill the reef, and we need more education and more fishing restrictions.	Comment noted. An additional alternative was added in the O'Ahu FEA that addresses concerns with Flame Wrasse. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.
818-5	Dallas Etzel	HI	4/29/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Envrionmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
819-1	Alfred Wolf	HI	4/30/2018	Concerned about the following species: Yellow Tangs, Butterflyfish, Cleaner Wrasses, All top 20 species taken on Oahu, Surgeonfishes, All White List Species Taken in West Hawaii, Hermit crabs, Leaf Scorpionfish, Snowflake eels, Frogfishes, Flame Wrasses, Bandit Angelfish, Moorish Idols, Shrimps, Angelfishes, Dragon Eels, HI Turkeyfish, Forcepsfish, Tobys/Puffers.	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
819-2	Alfred Wolf	HI	4/30/2018	Specific concerns about these species: Natural beauty of coral reefs is diminished, Species abundance has been significantly reduced, Species I once encountered are missing, Communities of reef species have been disrupted and the balance has been altered, The real possibility that future generations may not encounter these species, DLNR estimated the time to assess populations/set take limits for 40 species taken by the aquarium trade at 10-15 years. These EAs are wholly inadequate.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). Section 5 of the FEAs comclude no significant adverse impacts to socioeconomic, cultural resources, or biological resources (including the White List species/top 20 collected species in O'ahu, SGCN, reef habitat, or species populations). The FEAs were prepared using the best available data. Peer reviewers confirm data are accurate.
819-3	Alfred Wolf	HI	4/30/2018	Some or all of the species identified above have been impacted on reefs in the following Hawaii Island districts: Maui/Molokai/Lanai.	Comment noted. The best available scientific data concerning species abundance has been included in the FEAs. The FEAs conclude no significant impact from commercial aquarium collection.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
819-4	Alfred Wolf	HI	4/30/2018	Health of the reefs is far more important than the delights of an aquarium.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. As noted in Sections 5.4.1.2.4 (Hawai'i) and 5.4.1.2.5 (O'ahu) of the FEAs, two studies (Tissot and Hallacher (2003)) and a long-term DAR coral monitoring program have concluded that commercial aquarium fishing has had no significant impact on the island's reefs.
819-5	Alfred Wolf	HI	4/30/2018	Urge DLNR to recognize the significant impacts, reject the EAs, and require comprehensive Environmental and Cultural Impact Statements.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
820-1	PJBarba	N/A	4/28/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
821-1	PJBarba	N/A	4/28/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
822-1	Kamihata Tokyo	Tokyo	5/5/2018	Support the aquarium trade in HI and hoping that permits should be restored.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
823-1	Kamihata Exotic Animal	Tokyo	5/5/2018	Support the aquarium trade in HI and hoping that permits should be restored.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
824-1	Kamihata Tokyo	Tokyo	5/5/2018	Support the aquarium trade in HI and hoping that permits should be restored.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
825-1	kawa4	N/A	4/23/2018	There are some great lawful abiding fisherman/aquarians doing the right thing for our oceans/waterways, for the the environment, and inhabitants fo those waters.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
826-1	Cynthia DeLillo	N/A	5/4/2018	Clear evidence that our industry's collection activities are sustainable and management efforts are working.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
826-2	Cynthia DeLillo	N/A	5/4/2018	No scientific evidence to support the need for a fishing ban; ban negatively affects the marine trade and puts a great deal of people out of work in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
827-1	Evelyn Tiong	N/A	4/30/2018	Science presented does not seem to give any basis for the closure of the fishery; current ban should be lifted and fishing permits should be issued again.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
828-1	Sam Tiongco	N/A	4/29/2018	Studies show no detrimental impacts to the commonly collected fish and their habitat; certain species are even more abundant since closing a significant portion of West HI's coast to aquarium fishing.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
828-2	Sam Tiongco	N/A	4/29/2018	Encourage the same efforts be made with other types of fishing/snorkeling/swimming with marine animals.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing and tourism, are discussed in Section 5.4.3 of both FEAs.
828-3	Sam Tiongco	N/A	4/29/2018	Please allow aquarium fishing to resume by reinstating permits as soon as possible.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
829-1	Lee Ashford	HI	4/29/2018	EA shows management is working quite well; don't believe there is any scientific data presented that supports closure of the aquarium trade in HI.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
829-2	Lee Ashford	HI	4/29/2018	Would be nice to see the same studies done and attention given to all of the fisheries and ocean activities in HI; should hold all user groups to the standards of the HEPA law.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing, are included in Section 5.4.3 of both FEAs.
829-3	Lee Ashford	HI	4/29/2018	Consider lifting the ban and reissuing permits to those who rely on tropical fishing to support their families and businesses.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Socioeconomic impacts are discussed in Section 5.2 of both FEAs.
830-1	Sarah Leung	HI	4/29/2018	Findings of EA indicate a healthy and sustainable fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
830-2	Sarah Leung	HI	4/29/2018	Support the aquarium trade and the fishermen who have been disenfranchised throughout this process.	Comment noted. The FEAs both conclude no significant impacts from commercial aquarium collection.
831-1	Jay Lovell	N/A	4/29/2018	The aquarium tropical fish industry in HI has been considered one of the highest regulated in the world with 18 years of peer evaluated data to prove it is sustainable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
831-2	Jay Lovell	N/A	4/29/2018	Beaches and reefs are regularly destroyed by tourists and snorkeling desinations, but the tropical fish collectors are blamed; they have done nothing wrong and have been vilified for years in the public eye.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. Cumulative impacts from other sources, including commercial and recreational fishing and tourism, are discussed in Section 5.4.3 of both FEAs.
832-1	ipex	N/A	4/28/2018	Please pass the EA; tropical fish industry in HI proven sustainable thru extensive studies by both the DLNR and NOAA.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
833-1	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The HI DLNR DAR must reject both of these DEAs and ensure that PIJAC completes a comprehensive EIS before the Agency decides whether and how to issue future aquarium collection permits.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
833-2	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs are entirely inadequate under the HEPA and its implementing regulations. Most notable among the DEAs' flaws: fail to analyze the impacts of collection beyond one year; fail to analyze the cumulative impacts of unlimited collection of aquatic life; fail to analyze the cumulative impacts of commercial collection on the islands of Hawai'i and O'ahu along with collection in other parts of the State; fail to analyze the cumulative impacts of commercial collection along with recreational collection; fail to analyze impacts on cultural resources; fail to analyze reasonable alternatives; fail to analyze the impacts of harmful collection practices; rely on inaccurate, misleading, and incomplete data; fail to analyze mitigation measure; fail to incorporate input of Native Hawai'ian groups, experts, and affected citizens.	<p>Comment noted. The FEAs address the cumulative impact of foreseeable aquarium collection in future years in Section 5.4.3.3. Cumulative impacts of recreational collection is discussed in Section 5.4.3.1. Impacts to cultural resources are analyzed in Section 5.3.</p> <p>An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit form 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA. An additional alternative was added in the O'ahu FEA. Specifically, the alterantive proposes a Flame Wrasse bag limit of 10/day for commercial aquarium collection in O'ahu and the expansion of the Waikiki MLCD.</p> <p>The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate.</p> <p>Section 6.0 of the FEAs has been revised to describe the process used to engage with stakeholders prior to DEA development, and the broad distribution of the DEAs prior to publication. Comments on the DEAs were fully considered in developing the FEAs, including new preferred alternatives with bag limits for certain species in both FEAs.</p>
833-3	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Applicant unlawfully limited its analyses to the time period of a single year. PIJAC's reasoning for this is that each permit only lasts one year, and therefore a new EA would need to be completed on an annual basis. However, while Commenters agree that it is critical for the Agency to continue to monitor the impacts that aquarium collection is having over time, the relatively short time period of the activity itself does not nullify HEPA's clear requirement for considering the long-term effects of that activity (example given).	Comment noted. As noted in the FEAs, under HRS 188-31, the DLNR may issue an Aquarium Permit not longer than one year in duration; therefore, a temporal scope of one year is appropriate. DLNR will reevaluate the analysis contained in the FEA on an annual basis prior to renewal or issuance of commercial Aquarium Permits and will assess if any new information exists warranting reevaluation of the analysis presented in the FEA. The comparisons made in the example cited in this comment are not a direct comparison. The examples would not be subject to HEPA review in subsequent years, whereas Aquarium Permits will be reviewed annually for the impacts that will be occurring the following year.
833-4	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Additionally, a 12-month timeframe that analyzes impacts is inadequate because the impact of fish removal will accumulate over time. Studies show that catch numbers from the commercial aquarium fishery in Hawai'i have significantly increased over the last few decades and are likely to increase even more	<p>Comment noted. While it is correct that individuals are removed from the the population during the 12-month analysis period, it is also true that new individuals are added during that period, and therefore it is not certain losses will accumulate over time. As noted in Section 5.4.1.2.5 of the Hawai'i FEA and Section 5.4.1.2.6 of the O'ahu FEA, reef fish have high fecundity and are long lived, and as such produce a large number of young each year over many years. In addition, as noted throughout the FEAs, commercial aquarium collection targets juvenile fish leaving behind the adult broodstock. Limiting the scope of the HEPA analysis to a single year also buffers some of the uncertainty of future population trends. Likewise, the estimated harvest used more recent data (from 2000 or after) to capture recent trends, as well as to capture changes that were made in regulations in 1999.</p> <p>Section 5.4.3.3 has been added to both FEAs to address the cumulative impacts of multiple years of commercial aquarium collection.</p>

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-5	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The number of commercial aquarium permits issued per year has significantly increased over the last 18 years for the Island of Hawai'i (at ~35% per year, p=0.01) and for O'ahu (at ~29% per year, p=0.02) (see Fig. 1, see Appendix 1 for linear model results). In fact these trends have been observed since the early 1980s. It is likely that the number of commercial aquarium permits issued on the Islands of Hawai'i and O'ahu will continue to increase in the coming years due to the high demand for aquarium reef fish and their increasing market value.	Comment noted. The number of permits issued is not necessarily equal to the number of fishers actually collecting, nor is it necessarily indicative of the number of fish collected. The analysis in the FEAs (Table 15 in the Hawai'i FEA and Table 9 in the O'ahu FEA) evaluates the impact of both the average take from 2000-2018, as well as the maximum take that occurred over that same time period.
833-6	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs failed to take into account how increasing demand and increasing market value will affect already depleted targeted reef fish species in the coming years, thus result in significant environmental impact. For example, the market value of tropical reef fish (e.g., yellow tang) has increased and thus collection/fishing pressure is likely to increase in the near future. The commercial aquarium fishery in Hawai'i reports annual landings of over 579,000 organisms (fish and invertebrates combined). The number of aquarium fish caught on the island of Hawai'i since 1976 has substantially increased by 645%. Similarly, the adjusted value of the Hawai'i Island aquarium fishery increased by over 280% between 1976 and 2003. This relationship must be analyzed in the DEAs and permitting must be adjusted accordingly to account for populations declines.	Comment noted. As discussed in the Hawai'i FEA, population trends for two of the top three collected species (Yellow Tang and Kole) show stable or increasing population trends. While the third species, Achilles Tang, has shown past decreases in population size, an alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA. For the remaining species, the data analysis in the FEAs were limited to collection data from 2000-2017 due to changes in regulations that occurred in or after 1999 (i.e., creation of FRAs, bag limits, etc.). The analysis period of one year also means that it is unlikely there will be large changes in fishing pressure compared to recent (2000-2017) years.
833-7	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs also fail to consider other cumulative impacts. The Hawai'i DEA states that it only analyzes impacts that the aquarium permits issued for the island of Hawai'i will have; similarly, the O'ahu DEA states that it only analyzes the impacts that aquarium permits issued for O'ahu will have. Neither DEA considers the cumulative impacts that permits issued for either island will have cumulatively with permits issued for the other island with a DEA—let alone cumulatively with permits issued for islands for which PIJAC conducted no DEA (e.g., Kauai and the islands that make up the County of Maui). Coral reefs in Hawai'i are connected by ocean currents. Carried within these currents are the larvae of Hawai'i's reef fishes which typically settle downstream of the reefs where they originated. Most fishes on Hawai'i's reefs are the result of other fishes upstream of that reef. Fish removed from a reef can re-populate as long as the capacity of the upstream larval reservoir isn't exceeded. For example, the prevailing currents in Hawai'i mean that Hawai'i Island reefs "seed" the islands to the northwest—marine life spreads from the Hawai'i Island to the islands of Maui County and beyond. Reduced populations of reef fishes on Hawai'i Island can seriously impact reef fish abundance in the entire state.	Comment noted. As noted in Section 4.4 of both FEAs, Toonen et al. (2011) conclude that the Hawaiian Archipelago is not a single, well-mixed marine community, but rather there are at least four significant multi-species barriers to dispersal along the length of the island chain, and that species that appear capable of extensive dispersal, such as Yellow Tang and Kole, show significant population differentiation within the Hawaiian Archipelago. In addition, there are significant consensus genetic breaks that restrict gene flow between islands, include a barrier between the island of Hawai'i and the rest of the Main Hawaiian Islands (MHI).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-8	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>Additionally, the DEAs fail to even properly address the true nature of what the Applicant is requesting in its Preferred Alternative. Under the Preferred Alternatives for both EAs, "DLNR would issue Aquarium Permits for the island of Hawai'i under existing regulation set forth in HRS 188-31," and "DLNR would issue Aquarium Permits for the island of O'ahu under existing regulation set forth in HRS 188-31." In other words, PIJAC's Preferred Alternative is collection of an unlimited number of fish and other coral reef inhabitants—the limits of what regulation allows. Yet, the DEAs consider only very limited collection. HEPA requires that an EA assess the potential cumulative impacts of what State regulations allow, not just what some permittees may claim they intend to do with their permits. As the Hawai'i Supreme Court clearly stated, "the properly defined activity for the purposes of the HEPA analysis must encompass the outer limits of what the permits allow and not only the most restrictive hypothetical manner in which the permits may be used." Likewise, although the DEAs purport to analyze impacts cumulatively with those of recreational collection permits, the DEAs do not account for the fact that the Agency issues a permit for every application that is submitted, and therefore the take under recreational permits is potentially unlimited as well. And the DEAs admit that, as there is no required reporting for recreational permits, it is currently impossible to know how many of each species are taken under those permits. This lack of data precludes a FONSI.</p>	<p>Comment noted. The concept of "unlimited" collection is speculative and not reasonably foreseeable. The DEAs used the best available data (past commercial aquarium collection) to predict the reasonable outcome of issuance of permits for an additional year. In addition, data from Harding (2017) has been added to Section 5.4.3.1, which found that recreational aquarium permit holders collect an average of 45 fish per year, well below the maximum allowable number of 1,825.</p>
833-9	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>The analysis of cumulative impacts must include the impact of the commercial aquarium fishery, regardless of the gear used to capture the marine life, combined with non-aquarium commercial and recreational fisheries and other activities that impact population abundance. Commercial and recreational fishing combined with the aquarium fishery have a substantial impact on targeted species. The DEAs should determine cumulative impact of all fishing on target species. In addition, the DEAs must analyze indirect impacts from collection such as vessel traffic and accumulated reef damage due to vessel anchoring and collection practices. The DEAs must also evaluate the potential of cumulative impacts of climate change (warming and ocean acidification) on targeted fish species such as decline of coral coverage which have been demonstrated to influence reef fish species diversity and abundance.</p>	<p>Comment noted. The issues mentioned in the comment are addressed in various sections of the FEAs, including the Cumulative Impacts sections of both documents, direct impacts, and Section 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA, which note that two studies have concluded that the aquarium fishery has no significant impact on coral or the reef ecosystem.</p>
833-10	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>It is clear from an analysis of cumulative impacts that many of HEPA's "significance criteria" apply. Most directly, the proposed actions will likely have a significant effect on the environment due to at least: the loss or destruction of natural and cultural resources; curtailing the range of beneficial uses of the environment; substantial degradation of environmental quality; cumulative effects on the environment; and potentially substantially affecting rare, threatened or endangered species, or its habitat.</p>	<p>Comment noted. The FEAs conclude that the Preferred Alternative will not have a significant impact based on the significance criteria.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-11 (Part A)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>Environmental impacts from aquarium trade activities have been documented for over forty years. Under the Preferred Alternative, every fish and marine creature, other than corals and those associated with live rock, could be removed from one, or all, of the State of Hawai'i's reefs—with catastrophic effects. Collecting individual species in high numbers poses a significant threat to coral reef health. As explained herein, herbivorous species, such as Yellow Tangs and Goldring Surgeonfishes, are the most heavily targeted. Herbivorous fish are essential to avoid algal overgrowth of corals and concomitant degradation of the reef. Hermit crabs are also collected in large numbers despite being essential to ecosystem health. Other important functional groups include: planktivores (e.g. Hawai'ian Dascyllus), corallivores (e.g. Fourspot Butterflyfish, Multiband Butterflyfish), fish predators (e.g. Hawkfishes, Hawai'ian Lionfish) and cleaner fishes (e.g. Hawai'ian Cleaner Wrasse). The collection of large numbers of invertebrates including hermit crabs and shrimps that are grazers, scavengers, or cleaners, could potentially have serious ecosystem impacts including reduced resiliency to other threats.</p>	<p>Comment noted. The concept of "unlimited" collection is speculative and not reasonably foreseeable. Unlimited harvest is also possible under the no action alternative (just without the use of fine mesh nets). Analyzing extreme possibilities is not helpful (and not what the law requires). The law requires an assessment of the "expected consequences" of a proposed action. The FEAs used the best available data (past commercial aquarium collection) to predict the reasonable outcome of issuance of permits for an additional year.</p> <p>It is understood that coral reefs are a complicated ecosystem made up of many species that each serve a function. However, given the conclusions in the FEAs that commercial aquarium collection is not significantly impacting the populations of any of the White List Species on the island of Hawai'i or the top 20 collected species in O'ahu, the species are anticipated to continue to serve their functions in the ecosystem. In addition, as noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.</p> <p>This is not an irrevocable action, as fish net permits may be suspended pursuant to HAR 13-74-3(1) if the department determines that it is necessary for the protection and conservation of aquatic life. In addition, fish will continue to reproduce.</p> <p>The FEAs both conclude that there will be no significant reduction in the natural populations of species taken by the aquarium trade. In addition, regarding the aesthetic values of fish, the FEAs conclude that the percent of each population collected would be imperceptible to observers.</p>
833-11 (Part B)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>The reduction of natural populations of species taken by the aquarium trade in any area (e.g. specific site, zone, coastline, island or statewide), and by any amount, whether one or one hundred percent, indicates an irrevocable commitment and loss of a natural and cultural resource. This very loss curtails the range of beneficial uses that would otherwise be provided by the natural abundance of these populations. As has been long recognized, "The impact of commercial aquarium fish collecting is a complicated issue. The fish community members are highly dependent on one another. There is a constant interaction between predators and competitors, as well as other members of the food web. There is a lot of variability in the system, even when it is not disturbed by man. Reefs seem to undergo natural cycles. At times they may be very abundant. There is also natural variation in the fish community at different locations." The DEAs and any discussion of "sustainable" must include the high aesthetic value of this beautiful marine life as well as impacts to the complex relationships inherent in coral reef ecosystems and impacts to overall coral reef health. "Animal communities" are included in the rule definition for "environment," however the DEAs exclude any mention of the impact to fish and invertebrate communities. The Hawai'i State Wildlife Action Plan (SWAP) states that "Excessive extractive use constitutes a threat to wildlife. Certain reef fishes are harvested for sale in the aquarium trade These activities are not sustainable on a large scale and impact native wildlife."</p>	<p>Comment noted. The concept of "unlimited" collection is speculative and not reasonably foreseeable. Unlimited harvest is also possible under the no action alternative (just without the use of fine mesh nets). Analyzing extreme possibilities is not helpful (and not what the law requires). The law requires an assessment of the "expected consequences" of a proposed action. The FEAs used the best available data (past commercial aquarium collection) to predict the reasonable outcome of issuance of permits for an additional year.</p> <p>It is understood that coral reefs are a complicated ecosystem made up of many species that each serve a function. However, given the conclusions in the FEAs that commercial aquarium collection is not significantly impacting the populations of any of the White List Species on the island of Hawai'i or the top 20 collected species in O'ahu, the species are anticipated to continue to serve their functions in the ecosystem. In addition, as noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.</p> <p>This is not an irrevocable action, as fish net permits may be suspended pursuant to HAR 13-74-3(1) if the department determines that it is necessary for the protection and conservation of aquatic life. In addition, fish will continue to reproduce.</p> <p>The FEAs both conclude that there will be no significant reduction in the natural populations of species taken by the aquarium trade. In addition, regarding the aesthetic values of fish, the FEAs conclude that the percent of each population collected would be imperceptible to observers.</p>

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-12	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Hawai'i State Wildlife Action Plan (SWAP) states that "Excessive extractive use constitutes a threat to wildlife. Certain reef fishes are harvested for sale in the aquarium trade These activities are not sustainable on a large scale and impact native wildlife."	The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
833-13	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The list of species of greatest conservation need includes at least 18 native fish species that are threatened by the aquarium trade and in need of conservation actions to reduce the risk of extinction (see Fig. 2).	The Appliant was not able to find this statement or the referenced figure in the 2015 SWAP. The FEAs conclude no significant impact to SGCN that are included on the White List in Hawai'i (see Section 5.4.1.2.3 in the Hawai'i FEA) or in the top 20 collected species in O'ahu (see Section 5.4.1.2.3 in the O'ahu FEA).
833-14	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Butterflyfishes are heavily targeted by the aquarium trade (Fourspot Butterflyfish, Longnose Butterflyfish, Teardrop Butterflyfish, Forcepsfish, Multiband/Copperband). Reported aquarium harvest of those same five species has since plummeted (see Fig. 5). The same is true for other heavily targeted butterflyfish species that have been among the top twenty aquarium fishes collected by the trade since 1976. This sharp decline in reported catch is not an indicator that these species are no longer in demand. Continuing demand is confirmed by several examples: <ul style="list-style-type: none"> • These species' inclusion in the West Hawai'i White List. • Their exclusion from the O'ahu rules (The O'ahu aquarium rule prohibits take of three butterflyfishes, citing their "coral diets" as the need for the restriction. Since 1999 total reported take of those three species was 50 fish. Zero restrictions were provided for three additional coral eating butterflyfishes, with total reported take of over 51,000 individuals since 1999.) • The Fourspot Butterflyfish catch increase that followed the 2014/2015 warming event and unprecedented fish bloom. Subsequently, catch of the Fourspot Butterflyfish declined to an all-time low. 	Comment noted. Of the five butterflyfish species mentioned specifically in the comment, the FEAs conclude that commercial aquarium collection is anticipated to take less than 1% of the population of the fourspot butterflyfish, forcepsfish, and multiband/copperband butterflyfish (see Table 15 in the Hawai'i FEA and Table 9 in the O'ahu FEA). The longnose butterflyfish and teardrop butterflyfish are no longer able to be collected in West Hawai'i, and are not one of the top 20 collected species in O'ahu (i.e., collection less than 756 individuals per year).
833-15	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In nearly every encounter with commercial aquarium collectors on West Hawai'i reefs, snorkelers and divers have witnessed and documented destructive practices that harm corals, with the most damage coming from vessel anchors and chains. Sticks, buckets, nets, underwater propulsion devices (scooters) are laid in the corals and the fins, knees and legs of collectors often come in contact with the reef—in fact, they are typically described as "crawling across" or "standing" on the corals.	Comment noted. Section 5.4.1.2.4 of the Hawai'i FEA and and Section 5.4.1.2.5 of the O'ahu FEA note that two studies have concluded that the aquarium fishery and aquarium fish collection practices have no significant impact on coral or the reef ecosystem.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-16	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In addition to the impacts to biodiversity, ecosystem function, and other fisheries, aesthetic and other social values are also heavily impacted. Species experiencing the heaviest collection pressure, with a corresponding reduction in natural abundance, are Hawai'i's most beautiful, charismatic and iconic fishes. The diminished aesthetic value from the cumulative and substantial reductions in species such as Yellow Tangs, butterflyfishes and Moorish Idols, which are dominated by vibrant yellows and oranges and striking white and black patterns, cannot be overestimated (see Fig. 6). These colors are more than aesthetically pleasing, as our eyes are physiologically attuned to them. The frequencies and wavelengths of yellows, oranges and reds allow them to strike our eyes much faster than the other colors. By removing the species with prominent yellow, orange, red or white coloration and markings, the palette and very essence of what makes a coral reef beautiful to the human eye is diminished and degraded. It is impossible to decrease populations of a coral reef's beautiful wildlife without greatly decreasing the natural beauty of the place.	Comment noted. The FEAs both conclude that there will be no significant reduction in the natural populations of species taken by the aquarium trade. In addition, regarding the aesthetic values of fish, the FEAs conclude that the percent of each population collected would be imperceptible to observers. As noted in Section 5.2.2.2 of the FEA, available data do not suggest that commercial aquarium collection has impacted the tourism industry in Hawai'i. Hawai'i's tourism industry achieved new records in total visitor spending and visitor arrivals in 2016, marking the fifth consecutive year of record growth in both categories. The O'ahu FEA includes a revised Preferred Alternative that includes expansion of the existing Waikiki MLC, which is anticipated to decrease user conflict between commercial aquarium fishers and others (i.e., SCUBA divers, snorkelers, other tourists).
833-17	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs fail to address or even acknowledge the effects of the trade on the amenity/property values. Houses that are within a block or 100 meters of beautiful, clean and healthy coastlines, beaches and coral reefs are more valuable and sell for significantly higher prices than comparable properties elsewhere. The same is true for condos and hotels/hotel rooms which generally command higher room and occupancy rates. Healthy coral reefs are also more likely to prevent beach erosion and, therefore, add value as a form of coastal protection. One and a half percent of the sale price of these properties is attributable to the marine ecosystem. Hawai'i's reef-related property value in 2001 was calculated at \$40 million.	Comment noted. Both the Hawai'i and O'ahu FEAs address socioeconomic impacts in Section 5.2.2.2. The average sale price of homes in 2014 was \$594,440, which was 26.4 percent higher than the average sale price in 2011. In 2015, the total number of home sales increased by 9.3 percent (HDBEDT 2016).
833-18	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs fail to address or even acknowledge the effects of the trade on the recreational value of this marine life and their coral reef homes. The annual estimated expenditures related to marine life viewing (i.e. snorkeling and scuba) in Hawai'i is \$551 million. Reef-adjacent marine tourism expenditures (including hotel rooms) within 30 km of the coastline are an annual \$680 million. These amounts exclude the lost value from declining fish abundance which is captured in willingness to pay surveys and summarized below: Healthier reefs lead to substantial economic gains; Recreational users are willing to pay higher rates for a healthier marine environment; Snorkel/dive businesses benefit when there are more fish for their clients to see; One recent study showed divers were willing to pay \$93 to \$110 more to dive with abundant fish life; Without new regulations the potential for increasing losses is real; Inability to stem declining reef fish numbers could cause significant losses to dive tourism industry (i.e. reductions in willingness to pay); These consumer surplus losses could range from \$1.2 million to \$12.2 million annually; Areas with degraded reefs and low fish populations could also see significant losses from a decrease in their share of the global dive market; Anecdotal reports from long-time residents and visitors point to revenue loss already occurring from reduced abundance of beautiful fishes on Hawai'i reefs.	Comment noted. Both the Hawai'i and O'ahu FEAs address socioeconomic impacts in Section 5.2.2.2. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006)

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-19	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs fail to address or even acknowledge the effects of the trade on the substantial non-use values of this marine life and their coral reef homes. Intrinsic and social values associated with coral reefs are diminished by reduced fish populations. Concern for the marine environment has increased in recent years and people now place tremendous value on coral reef ecosystems. Many people value beautiful and healthy coral reef ecosystems as part of their legacy and responsibility to ensure future generations are able to experience them. A 2011 report for the National Oceanic and Atmospheric Administration (NOAA) estimated the passive use annual value of Hawai'i's coral reef ecosystems through a willingness to pay survey of U.S. households. The survey included a visual representation of an overfished and an abundant coral reef (see Fig. 7). The project determined that increased protections and restoration of degraded coral reefs in Hawai'i is worth about \$288 to the average U.S. household which aggregated over all U.S. households amounts to a \$34 billion annual passive use value for Hawai'i's coral reefs. ⁵⁸ This and other socio-economic values described here provide meaningful insights into the public's concerns and should be addressed in a comprehensive EIS.	Comment noted. Both the Hawai'i and O'ahu FEAs address socioeconomic impacts in Section 5.2.2.2. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
833-20	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The finding of no direct, indirect, or cumulative impacts on cultural resources is erroneous. Aquarium trade practices do, in fact, irrevocably commit natural resources, and this loss and harm equally applies to impacts to cultural resources, as well. The DEAs fail to acknowledge that Native Hawai'ians traditionally rely on species targeted by the trade for subsistence, such as pāku'iku'i (Achilles Tang) and kole (Gold Ring Surgeonfish), and this impact is not assessed.	Comment noted. This issue addressed in Section 5.3.1 of both the Hawai'i and O'ahu FEAs.
833-21	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In considering the impacts to cultural resources the DEAs also fail to take into account the Native Hawai'ian cultural and spiritual connections to the reef. For example, there is no consideration of the reef ecosystem and its associated gods and goddesses or their many kinolau (divine bodily forms). These gods and goddesses include, but are not limited to, the Goddess Hina and her form as Hina 'Opu Hala Ko'a who is the goddess of the coral and who gives birth to the reef itself; or, in her moon form which relates to coral spawning events. The Native Hawai'ian ceremonial practices associated with these types of cultural and religious beliefs are given no consideration in these DEAs. Likewise, many of the particular fish species favored by the aquarium trade also happen to be 'aumakua (family guardians). The taking of these species obviously adversely impacts Native Hawai'ian cultural and religious beliefs and practices. None of these aspects have been taken into account in these DEAs. "Malama aina involves asking permission prior to fishing, taking only what you need, sharing your catch with your extended 'ohana or community and having respect for the sacredness of the process. Clearly, harvesting live fish for economic gain and shipping them in a bag for a long, convoluted odyssey, potentially resulting in mortality and waste, violates the very core of these traditional values."	Comment noted. The impacts to cultural resources sections have been revised in the FEAs, see Section 5.3 of both FEAs.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-22 (Part A)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	A major factor that drives the rates of collection is premature mortality rates in captivity. According to a long-time industry insider, most yellow tangs die with the first month in a hobbyist tank and fewer than 1% of those captured survive one year in captivity. A 2012 study determined that mistreatment in capture, handling, transport, and holding plays a larger factor in these premature deaths than hobbyist inexperience. The researchers also determined that each step in the supply chain significantly profits from customer purchases to replace fish that die prematurely, and that profits from replacement fish sales are so high, stores have no incentive to take action to reduce deaths.	<p>Comment noted. Because mortality post-collection is not anticipated to change from current conditions, it is not anticipated that this factor will alter the estimated collection numbers.</p> <p>In addition, the paper referenced here (Cartwright et al. 2012) is focused on marine ornamentals from the "Coral Triangle" (Philippines, east Malaysia, Indonesia, Timor-Leste, Papua New Guinea, and the Solomon Islands), where they commonly use harmful chemicals such as cyanide and dynamite to catch fish, which then leads to extremely high mortality rates in the supply chain. These practices are not used in Hawaii.</p>
833-22 (Part B)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	A number of practices frequently utilized as cost saving measures by the aquarium trade in Hawai'i are inhumane and significantly contribute to the stressors that accumulate and ultimately lead to premature deaths of captive marine life. They include rapid surfacing and subsequent use of a technique known as "fizzing" to mitigate the resulting barotrauma injury to swim bladders; starving fish for 2 – 10 days prior to transport and spine cutting. Alternatives to these practices include slow surfacing, transport in larger volumes of water to dilute any waste produced by fishes during transport, and transport in hard plastic containers that cannot be punctured by fish spines. Every fish that dies early puts extra pressure on natural resources because of the take of replacements. There is a general consensus in many countries that it is not ethical to trade in live animals, unless their health and welfare are ensured. These unnecessary and early deaths have given the trade a poor image. A \$20 million, multi-stakeholder reform effort failed, in part, because of trade reluctance to address, and take steps to reduce, mortality rates. Fifty percent of species among Hawai'i's historical top 20 fish list are either not guaranteed to arrive alive or stay alive longer than 7 – 14 days when purchased from online or "brick and mortar" retailers. Examples are found in Appendix 3.	<p>Comment noted. Because mortality post-collection is not anticipated to change from current conditions, it is not anticipated that this factor will alter the estimated collection numbers.</p> <p>In addition, the paper referenced here (Cartwright et al. 2012) is focused on marine ornamentals from the "Coral Triangle" (Philippines, east Malaysia, Indonesia, Timor-Leste, Papua New Guinea, and the Solomon Islands), where they commonly use harmful chemicals such as cyanide and dynamite to catch fish, which then leads to extremely high mortality rates in the supply chain. These practices are not used in Hawaii.</p>

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-23	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Baseline fish population data from the 1970's at Honaunau in West Hawai'i were compared to data gathered in surveys conducted 1998 – 2001. The results indicated that nearly all small bodied surgeonfish, butterflyfish and angelfish (i.e. species targeted by the aquarium trade) declined in abundance. Commercial aquarium collecting was implicated in the decline (see Fig. 8). Similar results were found at Ke'ei where the site had been intermittently surveyed since 1979. "Of the 20 most collected aquarium species, 18 declined in abundance with the species facing the heaviest fishing pressure typically showing the greatest declines."	<p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>As discussed in the Hawai'i FEA, population trends for two of the top three collected species (Yellow Tang and Kole) show stable or increasing population trends. While the third species, Achilles Tang, has shown past decreases in population size, an alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.</p> <p>The paper referenced in the comment was Williams and Walsh (2007). This study was conducted in 1998-2001, which coincides with the beginning of the FRAs, and as stated above, population trends for two of the top three collected species since implementation of more regulations in 1999 have been stable or increasing. The evidence suggests that the conservation measures put in place in 1999 and 2014 are working, and the Preferred Alternatives in both FEAs add additional conservation measures. Williams and Walsh (2007) also found declines in food fishes (17 of the 29 species) and other species (26 of the 47 species), but these were determined to be non-significant because it wasn't as large of a proportion of the group as aquarium fish (18 of the 20 species). However, of the ten aquarium fish species that they evaluate in the text, half of the species are not on the White List, and are thus no longer collected in West Hawaii.</p>
833-24	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Another long-term study looked at reefs in South Kohala and determined that reef fish abundance was in "drastic decline" and reefs were in "dire straits". Populations of all of the top five most abundant fish families had declined since the original surveys conducted in 1979-1981 (see Fig. 9). Thirty-one of the thirty-five most abundant fish species had declined, including 19 species targeted by the aquarium trade. Most of the aquarium targeted species had declined by more than 50% and many were down by more than 80%.	<p>The study cited in the comment also concluded that "the widespread declines in families of fish not typically targeted either for food use or for the aquarium fishery suggest that other, more widespread factors are additionally contributing to the overall long term declines in fish abundance."</p> <p>The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p> <p>As discussed in the Hawai'i FEA, population trends for two of the top three collected species (Yellow Tang and Kole) show stable or increasing population trends.. In addition, an alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.</p>
833-25	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The areas south of these reefs are subject to some of the most intense aquarium collecting pressure in the state. Aquarium take between Keahole Point and these reefs in South Kohala, in one year alone, exceeds the aquarium take from the entire Great Barrier Reef in Australia, which has a reef area that is 300 times larger than Hawai'i's. For example, in 2014 aquarium collectors reported taking 191,083 fish from this Hawai'i zone. By comparison, 2014 reported aquarium take from the Great Barrier Reef was 112,000.	<p>Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-26	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Abundant populations of herbivorous fishes are critically important to coral reefs. They keep algae from overgrowing corals or preventing new corals from starting. Important families of herbivorous fishes in Hawai'i include surgeonfishes, damselfishes and parrotfishes. The vast majority of fishes taken by the aquarium trade are surgeonfishes. The Dire Straits study documented a 90% decline in herbivorous surgeonfish and damselfish populations, while parrotfish populations had actually increased over time. This aforementioned 90% decline in herbivores contributed to a 35% reduction in coral cover, a 64% reduction in coral building coralline algae, a 38% increase in algae at one site and a staggering 322% increase in algae at another. DLNR claims that parrotfishes are more important herbivores than surgeonfishes when it comes to keeping algae in check on coral reefs. On these South Kohala reefs, the increased parrotfish populations were not enough to offset the loss of surgeonfishes and damselfishes, and the algae still outcompeted the corals. The notion that surgeonfishes taken by the aquarium trade are not an important component to coral reef health is challenged by this study.	Given the conclusions in the FEAs that commercial aquarium collection is not significantly impacting the populations of any of the White List Species on the island of Hawai'i or the top 20 collected species in O'ahu, the species are anticipated to continue to serve their functions in the ecosystem. In addition, as noted in Section 5.4.1.2.4 of the Hawai'i FEA and Section 5.4.1.2.5 of the O'ahu FEA, Tissot and Hallacher (2003) found no evidence that algal growth was higher in areas of collection versus areas without collection, despite differences in fish abundance.
833-27	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Two peer reviewed studies documented the magnitude of the effect of aquarium collecting on natural populations of heavily targeted species by the aquarium trade. One, published in 2003 by Tissot and Hallacher, was conducted the two years prior to the establishment of the West Hawai'i Fish Replenishment Areas (i.e. aquarium no-take zones). The next study, by Tissot, et al., was conducted in 2000-2002, three years after those area closures. The results of each study showed that aquarium collectors have a significant effect on the abundance of targeted aquarium fishes (see Fig. 11). The U.S. Coral Reef Task Force described these results as follows: "Severe overfishing for aquarium trade occurs even in the United States: Aquarium fishes outside of reserves [in West Hawai'i] experience significant declines – from 14% to 97%." In a 2010 grant report to NOAA, DLNR documented that "a number of aquarium-targeted species have not responded to the increase in protected areas and have actually decreased in West Hawai'i since 1999" (see Fig. 11). Per DLNR aquarium catch reports, these species are also among the top 20 most harvested fishes. Nonetheless, all but two species, the Moorish Idol and the Hawai'ian Cleaner Wrasse, were included in the West Hawai'i 40 Species White List adopted in 2014. DLNR therefore calls for the continued harvesting of these species, despite knowing that their populations are in decline.	Comment noted. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
833-28	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Three species identified in the SWAP, the Bandit Angelfish, Bluestripe Butterflyfish, and Hawai'ian Turkeyfish Figure 4 (in gold outline) were included in a DLNR presentation on West Hawai'i Species of Special Concern (Fig. 2) where two were described as routinely seen in the 1970's and now very rare, and one was described as down by 99% in two different areas.	Collection of these three species is not allowed in the WHRFMA, as none of these species are on the White List. As discussed in Section 1.2.3 of the O'ahu FEA, a bag limit on Bandit Angelfish of two fish per day is already in effect. Impacts of commercial aquarium collection on Bandit Angelfish in O'ahu is discussed in Section 5.4.1.2.2 of the O'ahu FEA.
833-29	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In West Hawai'i the decline of butterflyfishes has been well-documented in both population surveys and aquarium catch data. A 2008 presentation on West Hawai'i aquarium species of special concern reported declines in butterflyfish abundance and diversity. Two species were particularly hard hit: the Bluestripe Butterflyfish and the Teardrop Butterflyfish, experienced population declines ranging from 89% - 100% in two West Hawai'i areas (see Fig. 12).	Comment noted. The Bluestripe Butterflyfish and the Teardrop Butterflyfish are not on the White List, and cannot be legally collected n West Hawaii.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-30	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Bluestripe Butterflyfish is a highly unique, endemic Hawai'ian species that, having no sister species elsewhere in the Indo-Pacific, is also known as a relic (see Fig. 13). Until 1980, this species was among the top twenty fishes collected in West Hawai'i, with an annual average harvest of 347. By 2012, the last year this species appeared on West Hawai'i catch reports, reported harvest had dropped to a total of nine. This species was excluded from the West Hawai'i forty species White List which went into effect in 2014. The Bluestripe Butterflyfish is listed in the species of greatest conservation need in the 2015 Hawai'i State Wildlife Action Plan. Threatened by the aquarium trade, conservation actions include to "protect current populations, but also to establish further populations to reduce the risk of extinction."	Comment noted. The Bluestripe Butterflyfish is not on the White List, and cannot be legally collected n West Hawaii.
833-31	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	According to DLNR reef surveys and catch data, the Teardrop Butterflyfish has also experienced drastic declines on West Hawai'i reefs (see Fig. 12). This beautiful species is named for the striking upside down black teardrop located mid-body (see Fig. 3). Until 1980, the Teardrop Butterflyfish was among the top ten fishes collected in West Hawai'i with an average annual harvest of 1,454 individuals (see Fig. 14). During the following five years, the harvest rate dropped, but it was still among the top twenty species collected (see Fig. 14). Though collection continued until at least 2013, by the late 1990's DLNR considered Teardrop Butterflyfish as no longer targeted by the aquarium trade and excluded them a list of aquarium targeted species provided to researchers, Brian Tissot and Leon Hallacher, who were embarking on a project to document the magnitude of the effect of aquarium collecting on natural populations. They were, however, included in the surveys to test assumptions since they were similar to targeted species. The researchers encountered just one individual Teardrop Butterflyfish during the entire study and so they were excluded from further analysis. In 2011 a group of divers encountered an aquarium collector at a popular North Kohala dive site. They watched in horror as the collector scooped up the first Teardrop Butterflyfish they had seen in that area in years along with a number of yellow tangs and other fishes (Fig. 15). ⁹² In 2013, the last year Teardrop Butterflyfish appeared on aquarium catch reports, reported take had dropped to a total of ninety, reflecting a 99% drop in annual catch since 1980. ⁹³ This species was excluded from the West Hawai'i forty species White List which went into effect in 2014.	Comment noted. The Teardrop Butterflyfish is not on the White List, and cannot be legally collected n West Hawaii.
833-32	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The aquarium fishery in West Hawai'i takes 1.8X more reef fish than recreational and other commercial fishing combined. Most of these fish are yellow tangs.	Comment noted. The statement in the comment was included in the Hawai'i FEA from the DAR 2014 report to the legislature. As noted in Section 5.4.3.2 of the Hawai'i FEA, the DAR report also stated if Yellow Tang, which is primarily collected at small sizes and generally not targeted by other fishers, is excluded, on average the recreational and commercial fisheries combine to take 3 times the number of reef fishes (194,674/year) caught annually by aquarium collectors (64,815/year).

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-33	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>“Overall Yellow Tang abundance in 30’-60’ hardbottom habitat in West Hawai’i increased by 355,758 individuals from 1999/2000 to 2010-2012 even though Yellow Tang abundance in the Open areas decreased by 21%. This decrease is attributable largely to an increase in the number of aquarium collectors and collected animals relative to the period when the FRAs were established.” Over sixty percent of West Hawai’i reefs are open to the aquarium trade. On the reefs in those areas, the impact of the aquarium trade on natural populations of yellow tangs has been a significant reduction in the abundance. For example, natural populations were reduced by over 75% in 2007-2009 and in recent years, by 60% (see Fig. 16).</p>	<p>Comment noted. Section 5.4.1.2.1 of the Hawaii FEA includes more recent data than that referenced in the comment, which shows an increase in Yellow Tang populations between 1999-2000 and 2016-2017 in all areas, including a 58% increase in Open Areas (see Table 9 of the Hawaii FEA).</p>
833-34 (Part A)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>Unlike West Hawai’i, no aquarium fish population data was gathered during the early years of aquarium trade operations on O’ahu reefs. More recent data has been gathered in a yet to be published study by Dr. Gail Grabowsky of Chaminade University and is summarized below. Dr. Grabowsky reached the same conclusions reached by Williams and Walsh in a 2007 report documenting declines in populations of certain fishes on two Hawai’i Island reef areas: commercial aquarium collecting is implicated in the declines; and, the greatest declines are seen in the species that have faced the heaviest fishing pressure. Using the same methods described in earlier research on Hawai’i Island documenting the magnitude of the effect of aquarium collecting on natural populations of heavily targeted species, Dr. Grabowski and her team quantified the abundance of aquarium collected fish at over 20 sites around O’ahu from 2008- 2010. Surveyed species included Yellow tangs, Forcepsfish, the Hawai’ian “Domino” Damselfish, as well as additional butterflyfishes, surgeonfishes, and other fishes targeted by the aquarium trade. The fish population surveys showed that species targeted by the aquarium trade are ten times more abundant at Hanauma Bay, Hawai’i’s first marine life conservation district, protected since 1967, than they are on other O’ahu survey sites.</p>	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. Unpublished data from Dr. Grabowski was not available for analysis in the FEAs. Regarding poachers, as noted in Section 4.7.7.1 of the Hawai’i FEA, the DAR concluded that the 2010 and 2014 Hawai’i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors. The O’ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O’ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>
833-34 (Part B)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>As with the Hawai’i Island studies conducted by Tissot and others, uncollected sites were selected as controls and served as a proxy for estimating natural abundance. The data also showed that aquarium fish are rare at Pupukea and Coconut Island in Kaneohe Bay, both of which are protected similarly to Hanauma Bay, but unlike Hanauma Bay, are easily accessed by poachers. There were no juvenile fish smaller than a silver dollar at Hanauma Bay, which led Dr. Grabowsky to surmise that it may be “that the fish are so depleted on O’ahu that those we see are the “living dead” who cannot effectively maintain a population due to their rarity. This is called the Allee effect and has been documented in other rare species.”</p>	<p>Comment noted. The best available scientific data has been included in the FEAs. Peer reviewers confirm data are accurate. Unpublished data from Dr. Grabowski was not available for analysis in the FEAs. Regarding poachers, as noted in Section 4.7.7.1 of the Hawai’i FEA, the DAR concluded that the 2010 and 2014 Hawai’i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors. The O’ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O’ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).</p>

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-35	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In addition to population surveys, catch data can provide an important view into the status of populations of targeted fishes. As explained elsewhere in these comments, using catch data to estimate the proportion of fishing mortality to total population is highly problematic since catch reports are unverified and both underreporting and non-reporting are highly likely .	Comment noted. As stated in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.
833-36	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	However, where baseline population data are absent, and where consumer demand exists for a particular species or family group, it is highly likely that substantial declines of reported catch reflect reduced abundance of the target sizes—juveniles in most cases—of those species or families Hawai'i's reefs. In fact, historical catch reports have been used to document the collapse of the aquarium fishery on southwest O'ahu reefs after hurricane Iwa hit Hawai'i in 1982 and damaged many reefs. Per anecdotal reports from a number of aquarium collectors, the storm destroyed important habitat for yellow tangs and other targeted species. This resulted in the migration of many fishes to undamaged coral reef areas. Aquarium collectors then concentrated their efforts on these sites and within a few short years, populations of species targeted by the trade completely collapsed. Referring to these data, researchers noted that since yellow tangs are in high demand, these declines reflect the situation on these reefs (i.e. reduced abundance of the small yellow tangs targeted by the trade) (Walsh et al. 2004). Catch reports from 2016 confirm that yellow tang populations have yet to recover (see Fig. 17, 18).	Comment noted. The FEA concludes that the impact of commercial aquarium collection on Yellow Tang is less than significant.
833-37	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Bluestripe Butterflyfish (see Fig. 13) was among the top fifteen aquarium fishes captured on O'ahu through the five-year period that ended in 1995. As of the five-year period that ended in 2015, reported catch had declined by 79% from the five-year period that ended in 1980. In 2016, reported catch dropped an additional 15% (see Fig. 19). As previously noted, the Bluestripe Butterflyfish is listed among the species of greatest conservation need in the 2015 Hawai'i SWAP. Despite this listing and the alarming decline in reported catch, no take limits were placed on this species in the O'ahu Aquarium Rule.	Comment noted. Bluestripe butterflyfish are not on the White List in the WHRFMA and thus cannot be collected there. On O'ahu, they are not included in the top 20 fish species collected. However, between 2000 and 2017, an average of 340 Bluestripe Butterflyfish have been collected each year on O'ahu. This represents 0.6% of the 2017 CREP population estimate of 59,769 Bluestripe Butterflyfish on O'ahu, which is well below what is considered to be sustainable for reef fish harvest (5% - 25%; Ochavillo and Hodgson 2006).
833-38	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Reported catch of the Teardrop Butterflyfish has also experienced drastic declines on O'ahu reefs (see Fig. 19). During the ten-year period 1976-1985, the Teardrop Butterflyfish was among the top ten fishes collected on O'ahu with an average annual harvest of 2,558 individuals (see Fig. 19). During the following five years, the harvest rate dropped, but it was still among the top twenty species collected. As of the five-year period that ended in 2015, reported catch had declined by 94% from the five-year period that ended in 1980. In 2016, reported catch dropped an additional point (see Fig. 19).	Comment noted. Teardrop Butterflyfish are not on the White List in the WHRFMA and thus cannot be collected there. On O'ahu, they are not included in the top 20 fish species collected. However, between 2000 and 2017, an average of 223 Teardrop Butterflyfish have been collected each year on O'ahu. This represents 0.2% of the 2017 CREP population estimate of 102,031 Teardrop Butterflyfish on O'ahu, which is well below what is considered to be sustainable for reef fish harvest (5% - 25%; Ochavillo and Hodgson 2006).
833-39	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Bandit Angelfish is another beautiful and highly unique, endemic Hawai'ian species with a color pattern unlike that of any other angelfish on Earth (see Fig. 20). The Bandit Angelfish has been among the top twenty aquarium fishes captured on O'ahu on and off since 1976, most recently in During the five-year period 1976-1980, annual reported catch averaged 1,380 individuals (see Fig. 19). After that, annual reported catch rarely exceeded 600 individuals and from 1996-2005 the average was less than 100. As of the five-year period that ended in 2015, reported catch had declined by 64% from the 1976-1980 high (see Fig. 19).	As stated in Section 1.2.3, a bag limit for Bandit Angelfish of 2 per day is already in place on Oahu. Impacts to the Bandit Angelfish are discussed in Section 5.4.1.2.2 of the O'ahu FEA.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-40	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Catch reports also indicate increasing consumer demand for this precious species in the landed value data. From 1976-2003 the average landed value for a Bandit Angelfish was \$10. By 2004 it had jumped to \$54 and in recent years has skyrocketed to \$137 each. A similar pattern was noted for Bandit Angelfishes captured in West Hawai'i and prompted University of Hawai'i (UH) and DAR researchers to point out that decreasing catch combined with increasing value signals a real population decline. Not surprisingly, the Bandit Angelfish is also listed among the species of greatest conservation need in the 2015 Hawai'i State Wildlife Action Plan. Threatened by the aquarium trade, conservation actions include to "protect current populations, but also to establish further populations to reduce the risk of extinction." The O'ahu aquarium rule established a daily bag limit of two Bandit Angelfishes greater than 5.5 inches in length. Commercial data does not capture fish sizes so the impact of this size limit cannot be determined.	As stated in Section 1.2.3, a bag limit for Bandit Angelfish of 2 per day is already in place on Oahu. Impacts to the Bandit Angelfish are discussed in Section 5.4.1.2.2 of the O'ahu FEA.
833-41 (Part A)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Rules governing the take of certain aquarium species on O'ahu were adopted in 2014. The development and adoption of these rules was highly controversial because they were not scientifically sound and did not address the concerns of stakeholders outside the aquarium trade. Over 4,000 testimonies were received by DAR, and 98% of the comments preferred that aquarium collecting should end altogether or in the very least should include limits on the number of permits issued, and scientific and community- based limits on species and take levels. Many comments noted that the so-called "limits" allowed take that far exceeded the number of animals historically taken by the trade, and in fact, allowed limitless catch because they included no restrictions on input (i.e. permit limits), and no meaningful restrictions on output (species or take limits). Among those opposed to the rules was coral reef and marine fisheries biologist, Frazer McGilvray, who was the DAR Administrator at the time. Mr. McGilvray opposed the rules because they were neither based on science, nor were they developed under a multi-stakeholder approach. The written and oral testimony Mr. McGilvray presented to the board governing DLNR included the following: "All stakeholders should be consulted and everyone's opinion should be taken into account. There appears to be no scientific basis for the proposed bag limits for each species. The proposed take limits were akin to setting a speed limit at 400 MPH. These rules do not address the take of undersize, sexually immature fish. The majority of yellow tang allowed to be taken under this rule are immature and have not contributed to the future of the species. These rules, driven by the demands of the trade, are contrary to good natural resource management.	Comment noted.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-41 (Part B)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>The take of juveniles is generally prohibited in other fisheries, but not by the aquarium trade. The take of adults is allowed, but only where good management practices govern the take in other fisheries, but not by the aquarium trade. The taking of 100 immature yellow tang per person per day is not consistent with good natural resource management when there are more than 50 licensed aquarium collectors on O'ahu. It is my belief that these rules require further work and are not yet ready for adoption." The DLNR submittal to the board conceded that the proposed limits were not intended to reduce take, but were, instead, based on animal welfare. This statement does not stand up to scrutiny since no animal welfare experts or groups familiar with the aquarium trade were consulted, and in fact, the concerns of several of these groups were dismissed outright. Bag limits for certain sizes of three species were also imposed: a minimum and maximum (i.e. slot) limit for yellow tangs and maximum size limits for kole (bag limits of two of each size) and Bandit Angelfishes (bag limit of two). While there has been some discussion of the poor survival rates of very small yellow tangs, no such discussion was documented for the larger sizes. Finally, because aquarium catch reports do not capture fish sizes, it is impossible to determine or even estimate the impact of a size limit in the aquarium fishery." However, catch reports do show that despite the combined catch, size and vessel limits, yellow tang catch in 2015 and 2016 exceeded historical reported catch. This was due to an unprecedented warm water event that bleached and killed many corals, but also brought large numbers of young fishes to Hawai'i's reefs during 2014 and 2015.</p>	Comment noted.
833-42	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>The O'ahu DEA's discussion of other regulated species describes the Achilles Tang, Bandit Angelfish, and Hawai'ian Cleaner Wrasse as "not collected to the level of the top twenty collected species." However, according to both historical and recent catch data, this is inaccurate. These three species have historically, and recently in one case, been among the top twenty collected species on O'ahu as follows: Achilles Tang was among the top twenty during the five-year period that ended in 1985; Bandit Angelfish was among the top twenty during the five-year period that ended in 1980 and again in 2014, 2015 and 2016; Hawai'ian Cleaner Wrasse among the top twenty during the five-year period that ended in 1980. Bandit Angelfish have been described earlier, and Achilles Tangs are both a culturally important food source and an important herbivore on the reef. The Hawai'ian Cleaner Wrasse plays a particularly critical role in the reef ecosystem by feeding on parasites, dead tissue and mucus of reef and other fishes (see Fig. 21). In 2008 the West Hawai'i aquarium trade included the Hawai'ian Cleaner Wrasse in its list of Species of Special Concern that should not be captured, citing the key role they play in maintaining the "health of the reef population, as the doctors of the sea". Obviously this species plays a similar role on reefs throughout Hawai'i. This is another clear example of how the dictates of the North American aquarium trade are driving extremely poor management decisions. The cumulative impact of long term sustained heavy collecting pressure on these and other species must be assessed.</p>	<p>Comment noted. The FEA defines the top 20 collected species as the top 20 species collected based on the 1,295,700 individuals collected between 2000 and 2017, rather than within any individual year. None of the three species mentioned in the comment (Achilles Tang, Bandit Angelfish, or Hawai'ian Cleaner Wrasse) met this criteria. However, impacts to these three species are discussed in Section 4.4.5 and Section 5.4.1.2.2 of the O'ahu FEA.</p>

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-43	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In addition to fishes, marine invertebrates such as hermit crabs, Feather Duster Worms, sea stars and snails, are taken in very high numbers by commercial aquarium collectors. These invertebrates play a key role in the coral reef environment, and their overharvesting may have serious ecological consequences. Though they are captured by hand rather than fine mesh nets, and so have not been assessed in this DEA, the very large numbers that are taken and the impact should be assessed.	Impacts to invertebrates are discussed in Section 5.4.1.2.4 of the O'ahu FEA. On the island of Hawaii, invertebrates are only collected in East Hawaii, and those impacts are discussed in Section 5.4.1.2.2 of the FEA.
833-44 (Part A)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	Both DEAs are based on the premise that fish collection is considered sustainable if only removes less than 5% to 25% of the entire population (annually), but the reasoning behind this threshold is flawed. The DEAs stated that "research suggests that collection between 5% and 25% of a reef fish population is sustainable for various reef fish species in the Philippines that are similar to those on the White List (e.g., tang, wrasse, butterflyfish, angelfish, and triggerfish)" based on a Reef Check report by Ochavillo and Hodgson (2006). However, the DEAs should not use these thresholds because: These thresholds for sustainable ornamental fish collection are species-specific based on estimated natural mortality rates (M) and fishing mortality at maximum sustainable yield (FMSY) or year-per-recruit analysis. Natural mortality rates for reef fishes are based on growth rates and length and thus are also area-specific. Mortality is based on catch data. Yield-per-recruit analysis should be derived from several annual surveys. Thus, these parameters should be specifically calculated for Hawai'ian reef fish targeted by the aquarium industry as highlighted in Ochavillo & Hodgson (2006); The 5%-25% threshold indicates "a good rule-of-thumb of collection limit" for coral reef fishes in the Philippines. This does not mean it is a good rule of thumb for collecting reef fishes in Hawai'i; Most ornamental fish species in the Ochavillo and Hodgson (2006) are species different from those on the White list.	The FEAs were prepared using the best available scientific data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
833-44 (Part B)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>Only a few species share the same genus or species (butterflyfish, a couple of wrasses, one angelfish, a couple of damselfish, one tan and one triggerfish). Thus, it is questionable whether this fairly wide threshold (5%-25%) is representative and applicable to Hawai'ian species; Finally, this report is not peer-reviewed research, it is a field manual: Marine Aquarium Trade for Coral Reef Monitoring Protocol with a Data Analysis and Interpretation Manual. This field manual was designed in part to: "provide a scientific basis for recommending sustainable levels of collection." The DEAs assume that current fish abundance for target species is the baseline, and thus 1% to 5% of individuals remove from the population would be considered sustainable. But this is wrong. The DEAs do not acknowledge that current population abundance of most of these fish species is already depleted due to in part to exploitation and habitat degradation. The total allowable collection/catch for each species must be calculated based on information on natural mortality rates and the available and limited information on collection/catch records, specific to the Islands of Hawai'i and O'ahu.</p>	The FEAs were prepared using the best available scientific data. Peer reviewers confirm data are accurate.
833-45	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	<p>The Coral Reef Ecosystem Program (CREP) data used in the DEAs for the entire Islands of Hawai'i and O'ahu (based on 2010-2016 surveys) are not representative of regional population abundance such as in East Hawai'i and the West Hawai'i Regional Fishery Management Area (WHRFMA), and should not be used to estimate regional proportions of fish catch. Population abundance estimates for fish species for the entire island of Hawai'i are not representative of regional fish abundances such as East Hawai'i and WHRFMA. The CREP data collect fish data from 257 stationary point count locations around Hawai'i between depths of 0-98 feet. In contrast, the West Hawai'i Aquarium Project (WHAP) collected data from 25 transect survey sites from WHRFMA area between depths of 30-60 feet. It is well established that population abundances of reef fish species in Hawai'i, especially relatively small-size species that are targeted by the aquarium industry, are highly variable in space depending on reef complexity, depth and wave exposure, and in time (within and among years) depending on the season, mortality, recruitment to the population, and environmental factors. The relative proportion abundance of fish species taken annually by the aquarium industry should be based on regional total abundances and regional catch records (e.g., aligned with the aquarium fish trip report zones; or, as in Hawai'i DEA, Table 6). Allowable levels of take should be determined in conjunction with the wishes of Hawai'i residents and visitors who strongly desire that fish populations are restored to their naturally occurring (i.e. unfished) levels of abundance on the majority of Hawai'i reefs.</p>	The FEAs were prepared using the best available scientific data. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-46	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The Hawai'i DEA assumes that current island-wide and regional targeted fish population estimates are healthy and not impacted and this represents a shifting in baselines. Population abundance of most of these fish species has declined over the past decades due to overexploitation and habitat degradation and thus they cannot be considered baselines. Strong scientific evidence shows that coral reefs of the main Hawai'ian Islands, especially near higher human population densities (where exploitation pressure is the highest), have significantly less abundance and biomass of reef fish species than more isolated islands due to overfishing.	The FEAs were prepared using the best available scientific data. Peer reviewers confirm data are accurate.
833-47	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The allowable number of individuals that could be collected from aquarium fish populations must be substantially less than those stated by the DEA because most of these species are already depleted. Fishing effort has substantially increased for aquarium fish species on the Island of Hawai'i and prime-targeted species have significantly declined due to overharvesting. For example, population abundance of one of the most heavily exploited species, yellow tang (<i>Zebrasoma flavescens</i>), on the west coast of the Big Island of Hawai'i (West Hawai'i) declined 45% due to exploitation in areas open to fishing/collection from 1999 to 2007. Even when including marine managed areas (MMAs) such as fish replenishment areas (FRA), where collection is prohibited and abundances are five times higher than in open areas, the population abundance of yellow tangs on West Hawai'i is substantially less than historical levels. The established networks of MMAs have definitely worked to increase yellow tangs and some other fish species in the West Hawai'i FRAs, but not all species have responded positively, and some have actually decreased overall since the FRAs were established. Given the relative long life-span of yellow tangs (>40 yrs) and increasing fishing intensity, these MMAs are just becoming sources for the aquarium fishing industry. The recovery of this species to past levels is unlikely if fishing/collection intensity continues or increases in the future.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006). As summarized in Section 4.4.7.1 of the Hawaii FEA, only one White List species has declined exclusively within the Open Areas, indicating that factors other than aquarium collecting were also affecting the populations of any other species which had shown declines. Section 5.4.1.2.1 of the Hawaii FEA includes more recent data than that referenced in the comment, which shows an increase in Yellow Tang populations between 1999-2000 and 2016-2017 in all areas, including a 58% increase in Open Areas (see Table 9 of the Hawaii FEA).
833-48 (Part A)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	As mentioned above, there is no requirement for recreational aquarium collectors to report catch. For commercial collectors, while reports are required, catch report compliance is substantially low on the Islands of Hawai'i and O'ahu and thus catch records grossly underestimate the real impact of the aquarium fishery. The number of permits reporting catch in the islands of Hawai'i and O'ahu was approximately half of the number of commercial aquarium permits issue annually from 2000 to 2017. On average, 47% (40 out 85) of commercial aquarium permit holders reported their catch between 2000 and 2017 in O'ahu. Similarly, on average, 56% (33 out 59) of commercial permit holders in the Island of Hawai'i (WFRFMA and East Hawai'i combined) reported their catch during the past 18 years (see Table 3 in the DEA of Island of Hawai'i). Although commercial aquarium fishers are required to report their monthly catch on an aquarium fish catch report, the compliance is clearly significantly low.	Comment noted. As stated in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-48 (Part B)	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	This is a systemic problem that undermines the evaluation of the real impact that the aquarium fishery has on target species, the coral reef ecosystem, and the people that depend on them in Hawai'i. As such the impact of the aquarium fishing industry is likely larger than is reported, which has been discussed in the scientific literature. As a former DLNR employee succinctly wrote regarding aquarium catch reports: "The reliability of the data depends upon the sincerity of the permittees." This all stems from the lack of a license requirement for marine dealers and/or exporters. Currently there is a requirement for dealers (i.e. those who buy directly from aquarium collectors) to report their purchases, but without a requirement for these businesses to have licenses, many operate beneath the radar and serve as a conduit for moving unreported catch out of the state. Establishing a marine dealer/exporter license has long been a priority for those within DLNR concerned about Hawai'i's marine resources, because it would enable the department to verify catch reports, identify unlicensed collectors (and all commercial fishers), identify dealers and helped with generating economic data about the fisheries. Without this information DLNR/DAR has no accurate data on health of fish populations. According to a former DAR Commercial Fisheries manager, Karl Brookins, the process of establishing the license was abandoned due to lack of funding.	Comment noted. As stated in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.
833-49	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	In addition, the combined average of total fish and invertebrates collected under aquarium permits from East Hawai'i and the WHRFMA annually from 2000-2017 should not be used as reference for future annual collections. The lack of collection data for East Hawai'i from 2001 to 2004 lowers the calculated average and underestimates the number of fish collected. A more accurate estimation is to use data collected after 2005 when collection data from East Hawai'i resumed. As such the combined average fish and invertebrates collected under Aquarium Permits from East Hawai'i and the WHRFMA annually from 2005-2017 was 392,006 individuals instead of 355,381 (see Fig. 22). This updated estimate, which accounts for 36,625 more individuals, along with a value representing underreporting, should be used as the reference point for the DEA of Hawai'i to calculate proportion of the population that is being taken by the fishery.	Comment noted. The Hawaii FEA has been updated to exclude any years without data in the averaging for East Hawaii data. As stated in Section 4.7.7.1 of the Hawai'i FEA, the DAR concluded that the 2010 and 2014 Hawai'i Island aquarium catch report validation did not indicate substantial underreporting of catch by aquarium collectors.
833-50	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	The DEAs fail to incorporate data that is necessary in order to reach a finding of no significant impact. As discussed above, there is no reliable data on how many fish and other species are actually taken pursuant to aquarium permits in any given year. The DEAs repeatedly refer to a lack of data for numerous species. For example: "Because specific species of hermit crabs are not reported on aquarium permits reporting forms, it is not possible to know which species are collected, with the exception of zebra hermit crabs"; "Due to this underestimation, it is not possible to know the exact proportion of Flame Wrasse population that would be collected. . . ."; For Psychadelic (Redtail) Wrasse, Tinker's Butterflyfish, Longfin Anthias, Flame Wrasse, Fisher's Angelfish, and Eyestripe Surgeonfish (Palani), open area populations and catch as a percent of the open area populations are not available, because species "occur[] in habitats not adequately surveyed by transects." Furthermore, the Agency must conduct stock assessments of species before it is able to determine a sustainable rate of take. Clearly the Agency has not done so, as DLNR personnel have stated that to do so would take over a decade.	Comment noted. The best available scientific information provided by knowledgeable experts and peer reviewers were included in both FEAs. The FEAs have been updated to include such data.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
833-51	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	HEPA also requires EAs to consider mitigation measures. Such a discussion is plainly absent from both DEAs.	Comment noted. The FEAs have been revised to include an alternative based on conservation measures proposed by comments. A statement regarding mitigation has been added to Section 5.5 in both the Hawai'i and O'ahu FEA.
833-52	For the Fishes/The Humane Society of the United States/Center for Biological Diversity/Conservation Council for Hawai'i	N/A	5/8/2018	PIJAC additionally failed to conduct the required early consultations prior to submitting its DEAs. HEPA requires that the application must "at the earliest practicable time, . . . consult with . . . those citizen groups and individuals which the approving agency reasonably believes to be affected." In this case, it is clear from the long history of litigation that Commenters, at the very least, should have been consulted. PIJAC should also have consulted Native Hawai'ian groups and experts such as Gail Grabowsky. As a result of this failure to abide by HEPA's mandate of early consultation, the DEAs do not analyze all impacts, and are skewed toward a favorable result for industry.	See responses provided above. PIJAC engaged with interested parties prior to publication of the DEA (Section 6.5 in both the Hawai'i and Pahu FEA). The DEAs were widely distributed to a range of parties prior to publication. Public comments on both DEAs were fully considered during the development of the FEAs.
834-1	Elsa Baxter	N/A	5/7/2018	Assessments were submitted on behalf of those who benefit from the overharvesting of tropical fish from HI's waters; suggest there would be no significant impact and propose no take limits but do not include any new science or input from other stakeholders.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. Section 6.0 in the FEAs outlines the organizations, agencies, and individuals contacted, as well as the distribution of the draft EAs. In addition, the FEAs were updated in response to public comments.
834-2	Elsa Baxter	N/A	5/7/2018	Unlimited pillaging of HI's coral reefs wildlife by aquarium collectors has led to lost abundance, missing species, and diminished beauty from HI's coral reefs, causing serious environmental impacts and impacts to deeply rooted Hawaiian culture.	Comment noted. The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. This level of take is well below or within what is considered to be sustainable reef fish harvest based on available research (5% - 25%; Ochavillo and Hodgson 2006).
834-3	Elsa Baxter	N/A	5/7/2018	Urge you to reject the assessments and prepare environmental impact statements that objectively and comprehensively evaluate all environmental, cultural, and ethical impacts; maintain current moratorium until that analysis is complete.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact therefore an environmental impact statement is not required.
835-1	Alton Miyasaka	N/A	5/8/2018	Approach taken in the DEA for the Island of Oahu has merit and is a simple and logical method to better understand the risk of harm to the resources; regardless of the method chosen, they would all conclude that the current level of collection in this fishery is not posing a risk to the resources.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
835-2	Alton Miyasaka	N/A	5/8/2018	DAR data collected in 2017 supports that recreational aquarium collectors actually collect only a small fraction of the theoretical maximum of five animals per day (stats given).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
835-3	Alton Miyasaka	N/A	5/8/2018	Disagree that the DEAs should be updated annually, as the State has the authority to regulate individual species, as necessary.	Comment noted. DLNR will reevaluate the analysis contained in the FEA on an annual basis prior to renewal or issuance of commercial Aquarium Permits and will assess if any new information exists warranting reevaluation of the analysis presented in the FEA.
835-4	Alton Miyasaka	N/A	5/8/2018	The impact of the aquarium fishery on the flame wrasse population on Oahu are likely negligible; citations given showing evidence that the majority of the population largely occurs in depths beyond the CREP surveys.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact. The O'ahu FEA includes a new alternative that imposes a bag limit of 10 Flame Wrasse per day for commercial aquarium collectors in O'ahu (see Section 3.3 of the O'ahu FEA). Additional information on Flame Wrasse densities at lower water depths has been added to the O'ahu FEA in Sections 4.4.4.6 and 5.4.1.2.1.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
835-5	Alton Miyasaka	N/A	5/8/2018	The impact of the aquarium fishery on the yellow tang population on Oahu are likely negligible; the species has the same fecundity and ability to reproduce at a high rate; continues to be one of the most commonly collected fish species over the history of this fishery of over 40 years.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact.
835-6	Alton Miyasaka	N/A	5/8/2018	The DEA provides an adequate analysis of the status of the Oahu aquarium fishery. I am unclear what is meant by the term "vulnerable" species as there is no criteria for what constitutes vulnerable, such as vulnerable to what. The same vagueness holds for "replenishment rates." Assuming that replenishment is occurring, whatever that rate is appears to be more than the removal rate, with the net result being a stability in the top 20 species over the history of the fishery. If removal exceeded replenishment, one would logically see a shifting of the species. Replenishment rate may be synonymous with recruit survival, which is highly variable from year to year. Good survival during one year does not necessarily mean good survival the following year. Therefore, knowing a replenishment rate and using this year's replenishment rate as a predictor of next year's rate, and subsequently the harvest, would be risky.	Comment noted. The FEA concludes that the Preferred Alternative will not have a significant impact. The best available scientific data concerning species abundance has been included in the FEAs. Peer reviewers confirm data are accurate.
835-7	Alton Miyasaka	N/A	5/8/2018	Regarding the use of the 5-25% range, these numbers are from the Ochavillo and Hogdson 2006, Data Analysis & Interpretation Manual. These numbers were calculated using marine fish species from the Philippines, taking into account, natural mortality rates and a yield-per-recruit model that appears to be a reasonable application of this methodology. Despite the different species and environmental conditions between the Philippines and Hawaii, the utility of the method should still be valid. Hawaii and the Philippines share similar tropical environments and some of the same fish genera. As such, it is difficult to tell if Hawaii species would fall within this same range, but there are enough similarities between the two locations (Hawaii vs Philippines) that the ranges should be comparable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
835-8	Alton Miyasaka	N/A	5/8/2018	The differences in the range in the suggested collection levels in the Ochavillo analysis may, in part, be due to the differences in the reproductive potential and new recruit survival of each species. For example, a species that has high fecundity (ability to produce large numbers of eggs) should have the potential to quickly replace individuals lost during any one year with sufficient recruits the following year. Recruit survival is partially affected by the presence/absence of predators and habitat shelter. In all natural ecosystems, some species are common and some are rare. Their abundance is not determined by fishing pressure but by yet unknown environmental influences. Those same dynamics exist in Hawaii, as well as, the Philippines. Rarer species may likely be in the lower end of the range (the 5% side) due to the uncertainty of the species to replace those individuals lost to the fishing mortality within a year time period.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
835-9	Alton Miyasaka	N/A	5/8/2018	The use of a threshold of 25% as an upper limit of estimated population is therefore reasonable given the analysis focuses on the top 20 species of the fishery. These species are consistently in this top 20 group throughout the span of the fishery, suggesting that despite the numbers taken annually, such take hasn't dropped the species from this grouping. Given that these species are commonly collected because they are abundant, this would argue for the use of the 25% rather than the 5% side of the range.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/Location	Date Received	Comment	Response
835-10	Alton Miyasaka	N/A	5/8/2018	The DEA provides a reasonable interpretation of the Oahu data. The Oahu aquarium fishery data appears to be derived from the commercial aquarium catch data collected from licensed commercial aquarium collectors and are not from the West Hawaii Aquarium Project data.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
835-11	Alton Miyasaka	N/A	5/8/2018	The "all or nothing" option presented appears to be the most logical approach. Alternatives such as, sector fishing (issuing only recreational permits), spatial permitting (island permits), ortemporal permitting (collecting every other year), would unnecessarily complicate this fishery. It does not appear that this fishery is at risk so exploring other alternatives seems academic. Specific regulations on yellow tangs on Oahu already exist and other measures are not needed for this fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection.
836-1	Alton Miyasaka	N/A	5/8/2018	Approach taken in the DEA for the Island of Hawaii has merit and is a simple and logical method to better understand the risk of harm to the resources; regardless of the method chosen, they would all conclude that the current level of collection in this fishery is not posing a risk to the resources.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
836-2	Alton Miyasaka	N/A	5/8/2018	DAR data collected in 2017 supports that recreational aquarium collectors actually collect only a small fraction of the theoretical maximum of five animals per day (stats given).	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate. In addition, data from Harding (2017) has been added to Section 5.4.3.1, which found that recreational aquarium permit holders collect an average of 45 fish per year, well below the maximum allowable number of 1,825.
836-3	Alton Miyasaka	N/A	5/8/2018	Disagree that the DEAs should be updated annually, as the State has the authority to regulate individual species, as necessary.	Comment noted. DLNR will reevaluate the analysis contained in the FEA on an annual basis prior to renewal or issuance of commercial Aquarium Permits and will assess if any new information exists warranting reevaluation of the analysis presented in the FEA.
836-4	Alton Miyasaka	N/A	5/8/2018	The impact of the aquarium fishery on the Achilles tang population on Hawaii Island are likely negligible but are difficult to separate from the food fish take. Of all 40 species, the DEA seems to point out the Achilles tang as perhaps warranting further review. It should be noted that the aquarium collecting of Achilles is likely minor when compared to the overall food fish take of the species. There is typically very little overlap between the species that are taken for food and those taken for the aquarium. The Achilles is one exception.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.
836-5	Alton Miyasaka	N/A	5/8/2018	The DEA also speculates that the reduced populations of Achilles may be due to a recent period of poor recruitment but did not indicate a cause. Indirect indicators of negligible impacts are the facts that the Achilles tang continues to be one of the most commonly collected fish species over the history of this fishery. The species would not be able to sustain this position for the long time series of the fishery if they were not able to continually supply new individuals each year.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alternative proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limit for other fisheries in the WHRFMA.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
836-6	Alton Miyasaka	N/A	5/8/2018	In my opinion, the DEA provides an adequate analysis of the status of the Hawaii Island aquarium fishery. I am unclear what is meant by the term "vulnerable" species as there is no criteria for what constitutes vulnerable, such as vulnerable to what. The same vagueness holds for "replenishment rates." Assuming that replenishment is occurring, whatever that rate is appears to be more than the removal rate, with the net result being a stable 40 white list species. If removal exceeded eplenishment, one would logically see a shifting of the species. Replenishment rate may be synonymous with recruit survival, which is highly variable from year to year. Good survival during one year does not necessarily mean good survival the following year. Therefore, knowing a replenishment rate and using this year's replenishment rate as a predictor of next year's rate, and subsequently the harvest, would be risky.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
836-7	Alton Miyasaka	N/A	5/8/2018	Regarding the use of the 5-25% range, these numbers are from the Ochavillo and Hogdson 2006, Data Analysis & Interpretation Manual. These numbers were calculated using marine fish species from the Philippines, taking into account, natural mortality rates and a yield-per-recruit model that appears to be a reasonable application of this methodology. Despite the different species and environmental conditions between the Philippines and Hawaii, the utility of the method should still be valid. Hawaii and the Philippines share similar tropical environments and some of the same fish genera. As such, it is difficult to tell if Hawaii species would fall within this same range, but there are enough similarities between the two locations (Hawaii vs Philippines) that the ranges should be comparable.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
836-8	Alton Miyasaka	N/A	5/8/2018	The differences in the range in the suggested collection levels in the Ochavillo analysis may, in part, be due to the differences in the reproductive potential and new recruit survival of each species. For example, a species that has high fecundity (ability to produce large numbers of eggs) should have the potential to quickly replace individuals lost during any one year with sufficient recruits the following year. Recruit survival is affected by many factors, including the presence/absence of predators and habitat shelter. In all natural ecosystems, some species are common and some are rare. Their abundance is not determined by fishing pressure but by yet unknown environmental influences. Those same dynamics exist in Hawaii, as well as, the Philippines. Rarer species may likely be in the lower end of the range (the 5% side) due to the uncertainty of the species to replace those individuals lost to the fishing mortality within a year time period.	Comment noted. As stated throughout both FEAs, a take of 5% to 25% is considered to be sustainable reef fish harvest based on available research (Ochavillo and Hodgson 2006). The Hawai'i FEA concludes the the collection of 37 of the 40 White List species during the 12-month analysis period would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population. The O'ahu FEA concludes that collection of 18 of the top 20 collected species during the 12-month analysis period would be less than 1% of their respective overall island of O'ahu populations. Collection of the remaining two species would be less than 8% of their overall population. Thus, most take is at the lower end of the range (the 5% side) or less.
836-9	Alton Miyasaka	N/A	5/8/2018	The use of a threshold of 25% as an upper limit of estimated population is therefore reasonable given the analysis focuses on the top 4 species of the Hawaii Island fishery. The top 4 species are consistently in this group throughout the analysis, suggesting that despite the numbers taken annually, such take hasn't dropped the species from this grouping. Given that these species are commonly collected because they are abundant, this would argue for the use of the 25% rather than the 5% side of the range.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.

Comment No.	Commentor	State/ Location	Date Received	Comment	Response
836-10	Alton Miyasaka	N/A	5/8/2018	The DEA provides a reasonable interpretation of the Hawaii Island data. The approach taken in the Hawaii DEA is the same as the Oahu DEA. There is a slight difference for the Hawaii DEA in that the WHAP data is also available so the side-by-side analysis is informative. It appears that the use of the CREP data as a more robust data source to base this analysis, compared to the WHAP data, is valid. For the reasons explained in the DEA, the CREP data is statistically more robust for an island-wide population estimate, compared to the WHAP data, so I would agree with this logic.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
836-11	Alton Miyasaka	N/A	5/8/2018	The "all or nothing" options presented appear to be the most logical approach. Alternatives such as, sector fishing (issuing only recreational permits), spatial permitting (island permits), or temporal permitting (collecting every other year), would unnecessarily complicate this fishery. It does not appear that this fishery is at risk so exploring other alternatives seems academic. There is no evidence that intermediate measures are needed for this fishery.	Comment noted. The FEAs conclude no significant impact from commercial aquarium collection. The FEAs use the best available data regarding species abundance. Peer reviewers confirm data are accurate.
836-12	Alton Miyasaka	N/A	5/8/2018	As the catch of the non-commercial food fishery for the Achilles tang is thought to be substantial, should any measures be implemented to regulate their catch, such measure should apply to all fishers rather than only the aquarium collector. Also, because the aquarium collectors target the smaller animals and the food fishers target the larger animals, if the concern is recruitment overfishing, then specific regulations protecting the larger animals would be advised.	Comment noted. An additional alternative was added in the Hawai'i FEA that addresses concerns with Achilles Tang. Specifically, the alterantive proposes reducing the Achilles Tang bag limit from 10/day to 5 per day for commercial aquarium collection in the WHRFMA and imposing a 5/day bag limt for other fisheries in the WHRFMA.

APPENDIX C

DEA Transmittal Emails and Letter

From: [Lynch, James M.](#)
Subject: Draft Environmental Assessment (Commercial Aquarium Fishing Permits on the Island of Hawai'i)
Attachments: [Draft Environmental Assessment Hawaii 03132018.pdf](#)
[Hawaii Transmittal Letter \(3.27.18\).pdf](#)

Pursuant to the Hawai'i Environmental Protection Act, attached is a Draft Environmental Assessment (DEA) for the Issuance of Commercial Aquarium Fishery Permits for the Island of Hawai'i. This document has been submitted to the Hawai'i Office of Environmental Quality Control (OEQC) for publication on or about April 8, 2018. There will be a 30-day public comment period on the DEA. Please refer to the OEQC website for more information and to provide comments on the document.

Jim Lynch
On Behalf of PIJAC
206.370.6587

April 6, 2018

James M. Lynch
jim.lynch@klgates.com

T +1 206 370 6587

By FedEx

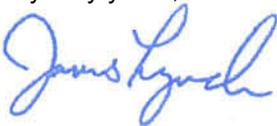
Hawaii Documents Center- Hawaii & Pacific Section
Hawaii State Library
478 South King St.
Honolulu, HI 96813

Re: Draft Environmental Assessment Documents - Publication date April 8, 2018 - 30-day public comment period

Enclosed please find copies of the following documents, which we are providing to you for the publication date of April 8, 2018 for a 30-day public comment period.

1. March 13, 2018 - Draft Environmental Assessment - Issuance of Commercial Aquarium Permits for the Island of Hawaii. Applicant: Pet Industry Joint Advisory Council (PIJAC)
2. State of Hawaii, March 27, 2018, DLNR transmittal letter - no significant impact (DEA-AFONSI) for the Commercial Aquarium Fishery in the Puna, South Hilo, North Hilo, Ka'ū, Hāmākua, South Kona, North Kona, South Kohala, and North Kohala Judicial Districts on the island of Hawai'i for publication in next available edition of the Environmental Notice
3. March 13, 2018 - Draft Environmental Assessment - Issuance of Commercial Aquarium Permits for the Island of O'ahu. Applicant: Pet Industry Joint Advisory Council (PIJAC)
4. State of Hawaii, March 27, 2018, DLNR transmittal letter - no significant impact (DEA-AFONSI) for the Commercial Aquarium Fishery in the Honolulu, Ewa, Wai'anae, Waialua, Ko'olauloa, and Ko'olaupoko Judicial Districts on the Island of O'ahu for publication in next available edition of the Environmental Notice

Very truly yours,



James M. Lynch

Enclosures

Cc: Department of Education, Hawaii State Library, Hilo Regional Library
Department of Education, Hawaii State Library, Pearl City Regional Library

APPENDIX D

Applicant Response to DLNR Comment Request

Revised May 4, 2018

DLNR Request for Public Comment on Hawai'i EA

Specific requests for comment included in the DLNR letter are provided below in **bold** along with a response.

The effects of the Commercial Aquarium Fishery on Achilles Tang (*Acanthurus achilles*), and its sustainability given its life history characteristics, current population trends, and harvest by other fisheries.

The DEA concludes that based on CREP population estimates, an annual commercial aquarium fish collection over a 12-month period would result in the collection of 1.28% to 5.44% of the overall island of Hawai'i Achilles Tang population. As stated in the DEA, research (Ochavillo and Hodgson 2006) suggests collection of between 5%-25% is sustainable for various reef species similar to those found in Hawai'i (e.g., tang, wrasse, butterflyfish, angelfish, triggerfish). However, given that a bag limit of 10 Achilles Tang per day was imposed in 2014, the more likely scenario is that collection over the 12-month period would average 5,600 Achilles Tang (the average amount collected since the bag limit was imposed), which represents 2.4% of the overall Hawai'i population.

While the DAR has suggested decreasing population trends for the Achilles Tang, at the same time, WHAP data have estimated that the Achilles Tang population has increased by 11,506 animals since 2014 (when the bag limit of 10 fish per day was imposed) in the 30-60 ft range within the WHRFMA. The DEA demonstrates that the WHAP surveys are not located in prime Achilles Tang habitat, do not survey in areas of Hawai'i where large portions of the Achilles Tang population (43%) occur, and do not survey where the majority of the Achilles Tang collection (56%) occurs. Therefore, the CREP data are considered to be a better estimator of island-wide Achilles Tang population size and are the best available data for evaluating impacts of aquarium collection.

Harvest by other fisheries (i.e., recreational aquarium permits, recreational fishers, commercial fishers) is not subject to the bag limit of 10 Achilles Tang per day, and not all fisheries are required to report catch to the DLNR. In terms of reef fish biomass caught by the different fisheries in the WHRFMA, the DAR in 2014 concluded that more biomass is taken by the combined recreational and commercial fisheries than the commercial aquarium fishery. In addition, unlike the aquarium fishery which targets mostly immature fish, the commercial and recreational fisheries selectively target the larger breeding portion of the population which has profound implications for the sustainable usage of the resource. These data indicate that the other commercial (nonaquarium) and recreational fisheries are likely having a far larger impact on the sustainability of Achilles Tang because they generally target the breeding stock (large fish). These impacts cannot be quantified because the other fisheries are not required to report in the same manner as aquarium fishers (e.g., recreational fishers and recreational aquarium collectors are not required to report at all).

The adequacy of the analysis presented in this DEA, including but not limited to removal and replenishment rates for vulnerable species; specifically, how is the estimated sustainable range of 5% to 25% annual take of the estimated total population arrived at, and should the threshold be 5% or 25%.

Most reef species are long-lived and highly productive, and due to the combination of a high fecundity (e.g., an average Yellow Tang female can produce 1,055,628 eggs each year) and long life-span (e.g., Yellow Tang may live up to 40 years), reef fish can likely sustain fairly high levels of continuous harvest. The estimated sustainable range for annual take presented in the DEA (5%-25%) is taken from published literature (Ochavillo and Hodgson 2006), which suggests collection of between 5% and 25% is sustainable for various reef species in the Philippines that are similar to those collected in Hawai'i (e.g.,

Revised May 4, 2018

tang, wrasse, butterflyfish, angelfish, triggerfish). We are not aware of other published literature that provides other sustainable collection estimates for aquarium fish. Nevertheless, if the average catch (based on the past 18 years of data) were to occur over the 12-month analysis period, the collection of 37 of the 40 White List species would be less than 1% of their respective overall island of Hawai'i populations. Collection of the remaining three species would be less than 5% of their overall population.

The interpretation of data presented in this DEA, including the analysis of NOAA NMFS Coral Reef Ecosystem Project (CREP) data versus DLNR Division of Aquatic Resources West Hawai'i Aquarium Project (WHAP) data.

CREP staff was consulted during preparation of the DEA on the use and interpretation of the CREP data. CREP staff reviewed the DEA and indicated that interpretation of the data as presented in the DEA is correct. As stated in the DEA, both the WHAP and CREP collect data on fish populations in nearshore waters of the island of Hawai'i that are available and appropriate for estimating population size, within the limitations of each survey (e.g., depth range), and for analysis of the impact of fish collection under Aquarium Permits. Both data sets are presented and analyzed in the DEA. However, due to the larger spatial coverage and greater range of depths surveyed by the CREP (257 stationary point count locations located around the island of Hawai'i, with the exception of collection zone 107, from depths of 0-98 feet vs 25 transect survey sites located only within the WHRFMA between depths of 30-60 feet for WHAP), CREP data are considered to be a better estimator of island-wide fish population size, are the best available data, and therefore are appropriate for the analysis.

Conservation measures to minimize or avoid impacts to target species, and specifically, whether other alternatives might be proposed to minimize or avoid impacts other than the two presented of no action, with no aquarium permits issued, and the preferred alternative of programmatic issuance of aquarium permits for the Island of Hawai'i - such as consideration of specific management measures for Achilles tang and other species.

Please refer to the comment letter from dated April 26, 2018, from the Big Island Aquarium Association of Fishers for specific conservation measures for the Island of Hawai'i.

From: [VanDeWalle, Terry](#)
To: [VanDeWalle, Terry](#)
Subject: FW: Comments on Aquarium fishing Environmental Assessment
Date: Monday, May 14, 2018 7:16:57 PM

-----Original Message-----

From: Richard Pyle [<mailto:pylediver@gmail.com>] On Behalf Of Richard Pyle
Sent: Wednesday, May 02, 2018 12:20 PM
To: Lynch, James M.
Subject: RE: Comments on Aquarium fishing Environmental Assessment

Hi Jim,

Thanks again for sharing the draft responses to DLNR comments on the aquarium fish EA.

Overall, I think your responses are excellent, and correct with respect to the existing available scientific evidence (as well as consistent with my own personal observations, when applicable).

I hope these are useful, and please don't hesitate to let me know if you would like me to elaborate on anything.

Aloha,
Rich