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Section 20

FORESTRY, FISHERIES, AND MINING

This section presents data on forests and forest reserves, commercial fishing and fish populations, and mining and mineral products.

Important sources of data on these subjects are the *United States Census of Mineral Industries* and *Mineral Industry Surveys*, U.S. Census Bureau, *2007 Economic Census, Geographic Area Series*, Mining, and reports and records of the Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources and Division of Forestry and Wildlife. *Historical Statistics of Hawaii*, Section 14, summarizes the data for earlier periods. Comparable national statistics are reported in the *Statistical Abstract of the United States: 2011*, Sections 18.

**Table 20.01-- FOREST AND NATURAL AREA ACREAGE, BY ISLAND:
JUNE 30, 2010**

Island	Conservation district forest land		Natural areas 3/	
	Forest reserve land 1/	Private forest land 2/	Number of areas	Acres
State total	676,000	328,742	19	109,164
Hawaii	476,000	106,745	8	82,535
Maui	4/ 83,000	53,180	4	17,123
Kahoolawe	-	-	-	-
Lanai	-	6,150	-	-
Molokai	(4/)	-	2	2,950
Oahu	31,000	88,817	3	1,770
Kauai	86,000	73,850	2	4,786
Niihau	-	-	-	-

1/ State-owned and privately-owned lands under surrender agreement in forest reserve system.

2/ Private forest land within conservation district. The majority of these lands were previously in the forest reserve system.

3/ Includes Waimanu Research Reserve (3,600 acres) and Alakai Wilderness Preserve (9,939 acres).

4/ Includes both Maui and Molokai.

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 20.02-- WOODLAND ON FARMS, 1997, 2002, AND 2007, AND BY COUNTY, 2007

[Acres]

Use	1997	2002	2007				
			State total	Hawaii	Honolulu	Kauai	Maui
Total	108,704	117,685	79,041	46,137	5,646	5,660	21,598
Pastured	31,844	41,467	22,570	12,791	(D)	103	(D)
Not pastured	76,860	76,218	56,471	33,346	(D)	5,557	(D)

D Withheld to avoid disclosing data for individual farms.

Source: U.S. Department of Agriculture, 2002 Census of Agriculture, Hawaii, (June 2004), p. 195.
 2007 Census of Agriculture, Hawaii, (February 2009), p. 240.

**Table 20.03-- FOREST AND BRUSHLAND FIRES, BY CAUSE OF FIRE:
2008 TO 2010**

Cause of Fire	Number of Fires			Acres burned		
	2008	2009	2010	2008	2009	2010
State total	32	8	11	2,385.2	8,079.1	3,521.9
Lightning	-	-	1	0.0	-	900.0
Campfire	3	-	2	3.2	-	2.1
Smoking	-	-	-	0.0	-	-
Debris burning	1	-	-	5.0	-	-
Arson	2	-	2	51.5	-	1,487.0
Equipment	8	-	-	1,125.5	-	-
Railroads	-	-	-	-	-	-
Children	-	-	-	-	-	-
Miscellaneous	18	8	6	1,200.0	8,079.1	1,132.8

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, Fire Management Program, *Annual Wildfire Summary Report* <<http://www.wildahinet.com/fmp/firedata.htm>> accessed July 12, 2011 and records.

Table 20.04-- COMMERCIAL FISHING: 2003 TO 2010

[Fiscal year ending June 30. Represents the total sea catches of all licensed commercial fishers.
Excludes pond catches, The Aquaculture and Development Program, Department of Agriculture, surveys pond harvest market information]

Year	Number of commercial fishermen	Commercial fish catch		
		Pounds landed	Pounds sold	Value to primary producers (dollars)
2003	3,434	24,054,939	(1/)	(1/)
2004	2,971	22,230,489	(1/)	(1/)
2005	3,248	24,876,316	(1/)	(1/)
2006	3,137	24,636,892	(1/)	(1/)
2007	3,220	26,563,127	(1/)	(1/)
2008	3,196	33,310,542	(1/)	(1/)
2009	3,557	2/ 28,065,282	(1/)	(1/)
2010	3,373	29,164,222	(1/)	(1/)

1/ Due to revisions to the commercial fishing report forms in October 2002, licensed commercial fishers no longer report ex-vessel landing values. The latter information is collected from a fish dealer reporting system. The Division of Aquatic Resources is developing an application to integrate the fishing and fish dealer reporting systems to summarize landings with ex-vessel landing value information. Therefore, only total landings reported by commercial fishers are available at this time.

2/ Revised from previous *Data Book*.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Fish Landings for Fiscal Year* (annual) and records.

Table 20.05-- COMMERCIAL FISH CATCH, BY SPECIES: 2008 TO 2010

[Fiscal year ending June 30, pounds landed, excludes pond catches. Due to revisions to the commercial fishing report forms in 2002, data may not be comparable to previous years]

Species	2008	2009 1/	2010
Total catch	33,310,542	28,065,282	29,164,222
Tunas	19,985,859	15,528,812	17,066,495
Aku (skipjack)	636,190	1,034,769	842,972
Tombo	1,014,455	491,422	982,317
Bigeye (ahi)	14,199,122	11,164,105	12,293,460
Yellowfin (ahi)	4,120,986	2,818,856	2,910,195
Billfishes	5,989,668	6,176,962	4,913,195
Blue marlin	787,524	1,164,743	1,060,700
Shortnose spearfish	577,794	274,264	242,253
Striped marlin	820,105	794,885	406,315
Swordfish	3,771,529	3,920,161	3,173,909
Miscellaneous pelagic species	5,240,266	4,459,253	5,209,892
Mahimahi	1,791,321	952,326	1,469,554
Monchong	659,001	675,165	621,885
Ono	992,558	740,747	725,930
Opah	1,283,863	1,576,650	1,808,524
Walu	481,862	492,139	563,637
Deep bottom fishes	439,182	491,348	396,800
Ehu	23,089	27,551	24,882
Hapupuu	24,060	23,434	11,110
Opakapaka	112,136	146,302	109,557
Uku	157,147	124,545	125,142
Ulaula (onaga)	82,476	85,488	59,408
Akule/opelu	792,269	622,556	724,968
Akule	489,538	316,555	408,846
Opelu	302,731	305,982	316,074
Jacks	53,012	43,324	43,035
Inshore fishes	324,841	304,680	396,073
Sharks	374,942	312,163	259,992
Mako	273,945	236,311	207,366
Lobsters	9,059	18,467	23,182
Crabs	47,893	43,142	54,636
Shrimps	(2/)	(2/)	(2/)
Seaweeds	10,021	7,684	12,028
Unclassified / miscellaneous	43,530	56,891	63,926

1/ Revised from previous *Data Book*.

2/ Due to low level of fishermen reporting and to preserve confidentiality, data for these species are pooled under miscellaneous.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Fish Landings, State of Hawaii—Fiscal Years 2008-2010* and records.

Table 20.06-- COMMERCIAL SEA LANDINGS, BY ISLAND: 2008 TO 2010

[Fiscal year ending June 30, pounds landed]

Island	2008	2009 1/	2010
State total	33,310,542	28,065,282	29,164,222
Hawaii	3,073,342	2,266,356	2,867,404
Maui	658,024	680,341	679,976
Lanai	14,441	19,135	13,634
Molokai	22,652	43,434	34,119
Oahu	28,829,479	24,410,059	24,774,566
Kauai and Niihau	712,604	645,957	794,523

1/ Revised from previous *Data Book* .

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, records.

**Table 20.07-- COMMERCIAL SEA LANDINGS, BY FISHING METHOD:
2008 TO 2010**

[Fiscal year ending June 30, pounds landed]

Fishing method	2008	2009 1/	2010
All methods	33,310,542	28,065,282	29,164,222
Aku pole and line	346,461	646,795	(2/)
Longline	26,928,332	21,819,806	22,369,598
Handline	1,812,335	1,710,456	2,096,754
Trolling	2,926,225	2,864,895	2,989,823
Net	751,172	508,328	603,915
Trap	74,864	58,601	82,978
All other methods	471,153	456,401	1,021,154

1/ Revised from previous *Data Book* .

2/ Due to low level of fishermen reporting and to preserve confidentiality, data for these species are pooled under all other methods.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Fish Landings, State of Hawaii--Fiscal Years 2008-2010 and records*.

Table 20.08-- MINERAL INDUSTRIES (NAICS 21): 1982 TO 2007

[Includes establishments with payroll. Statistics based on the North American Industry Classification System (NAICS) which replaced the Standard Industrial Classification (SIC) system used in Economic Censuses prior to the 1997 Economic Census]

Subject	1982	1987	1992	1997	2002	2007
Number of establishments	12	9	7	7	8	8
With 20 employees or more	4	4	4	2	1	4
All employees						
Number (1,000) 1/	0.2	0.2	0.2	0.1	0.1	0.2
Annual payroll (million dollars)	3.8	7.4	9.4	5.6	7.3	9.6
Production, development, and exploration workers						
Number (1,000) 1/	0.1	0.2	0.2	0.1	0.1	0.1
Annual hours (millions)	0.2	0.4	0.4	0.2	0.2	0.3
Annual wages (million dollars)	2.6	5.7	8.1	4.7	5.1	7.9
Value added (million dollars)	9.7	23.5	27.3	22.0	20.7	49.0
Total cost of supplies (million dollars)	5.9	10.4	11.3	(D)	6.6	12.9
Total value of shipments and receipts for services (million dollars)	12.8	31.1	33.7	33.3	25.6	55.4
Capital expenditures (million dollars)	2.7	2.8	4.8	(D)	1.7	6.4

D Withheld to avoid disclosing data for individual companies.

1/ For pay period including March 12.

Source: U.S. Census Bureau, *1987 Census of Mineral Industries, Geographic Area Series, Pacific States*, MIC87-A-9 (October 1990), Hawaii table 1; *1992 Census of Mineral Industries, Geographic Area Series, Pacific States*, MIC92-A-9 (May 1996), Hawaii table 1; *1997 Economic Census, Mining, Geographic Area Series, Hawaii*, EC97N21A-HI (May 2000), table 1; *2002 Economic Census, Mining, Geographic Area Series, Hawaii*, EC02-21A-HI (April 2005), table 1; 2007 Economic Census, Sector 21: EC0721A2: Mining: Geographic Area Series: Detailed Statistics for the State or Offshore Areas: 2007 <http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=04000US15&-fds_name=EC0700A1&-ds_name=EC0721A2&-_lang=en> accessed May 26, 2010.

Table 20.09-- NONFUEL MINERAL PRODUCTION: 2006 TO 2008

[Production as measured by mine shipments, sales, or marketable production (including consumption by producers), Data are rounded to no more than three significant digits; may not add to totals shown]

Minerals	2006	2007	2008
QUANTITY (1,000 METRIC TONS)			
Gemstones	(NA)	(NA)	(NA)
Sand and gravel (construction)	1,230	1,570	1,410
Stone (crushed)	1/ 8,980	8,800	7,540
VALUE (\$1,000)			
Total	1/ 154,000	161,000	162,000
Gemstones	107	151	151
Sand and gravel (construction)	15,900	20,400	25,600
Stone (crushed)	1/ 138,000	141,000	136,000

NA Not available.

1/ Revised from previous *Data Book*.

Source: U.S. Geological Survey, Minerals Information, "2008 Minerals Yearbook, Hawaii 2008 [Advance Release]" <<http://minerals.er.usgs.gov/minerals/pubs/state/hi.html>> accessed June 6, 2011.