

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
Honolulu, HI, 96813

October 26, 2012

Chairperson and Members
Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Land Board Members:

SUBJECT: REQUEST TO DECLARE AXIS DEER ON HAWAII ISLAND TO BE
DESTRUCTIVE TO AGRICULTURE, NATIVE PLANTS, AND WILDLIFE

AND

REQUEST TO AUTHORIZE THE DESTRUCTION OF AXIS DEER ON
HAWAII ISLAND, WITHOUT LIMITATION ON THE NUMBER TAKEN,
FOR A PERIOD OF FIVE YEARS FROM SEPTEMBER 14, 2012, THROUGH
SEPTEMBER 13, 2017, WITHOUT REQUIRING PERMITS, PURSUANT TO
SECTION 13-124-7(g), HAWAII ADMINISTRATIVE RULES.

SUMMARY:

Submitted for your approval is a request that the Board of Land and Natural Resources 1) declare axis deer (*Axis axis*) to be harmful to agriculture and native plants and wildlife on Hawaii Island, as described in section 13-124-7(g), Hawaii Administrative Rules (HAR), and 2) authorize the destruction of axis deer on Hawai'i Island for a period of five years (2012-2017), without the requirement of a permit or report, pursuant to 13-124-7(g), HAR. This authorization would allow licensed hunters to dispatch deer on public and private lands without limitation on the number taken.

BACKGROUND:

Axis deer (*Axis axis*) are native to southeast Asia and were introduced to Moloka'i in the 1860s. Subsequent anthropogenic movement of deer has resulted in the presence of large herds on the islands of Maui and Lana'i. In recent years, an unknown number of deer have been illegally transported to Hawai'i Island. While the overall number of deer on Hawai'i Island is likely less than 100 individuals at present, reproductive rates have been estimated at 30% annually by the Big Island Axis Deer Project (a collaboration of the Division of Forestry and Wildlife, the University of Hawaii, and the Big Island Invasive Species Committee) and suggest the potential for rapid population growth. Further, the widespread distribution of deer across a variety of

habitats and elevations on Maui demonstrates the potential for this species to become widely distributed across Hawai'i Island.

The impact of this species on Hawai'i's environment is severe. Axis deer are voracious browsers of crops, foraging grass, and forest plants. The negative impacts of deer on Hawai'i's forests are two-fold: in addition to browsing native plant species, the hooves of deer disturb the upper soil layer and increase erosion. On a large hillside, this increase in erosion can subsequently impact reef health and near shore fisheries as sediment is carried by rainwater into the ocean.

On Maui, deer have been observed browsing on a variety of fruits and vegetables, resulting in both an economic loss of product as well as decreased food security and self-reliance for Hawai'i's agricultural industry. The presence of deer feces on agricultural lands represents a threat to human health and may prevent farmers from selling crops. The tendency of axis deer to eat foraging grass results in competition between the deer and livestock, negatively impacting meat and dairy production. Maui County has estimated the two-year cost of damage by axis deer to farms, ranches and resorts in Maui County at over \$2M. Over that same two-year period, an additional \$1M was spent to remove deer from farm, ranch, and resort locations. Based on the proportional loss of agricultural product on Maui, the University of Hawai'i estimates the potential impact to agriculture on Hawai'i Island at over \$8M annually.

In the 1970s, the department considered introducing deer to the big island to enhance hunting opportunities there. Upon deliberation, the proposed introduction was disapproved on the grounds that the introduction of deer to Hawai'i Island would result in unacceptable levels of damage to natural resources, including economic damage to local farmers. It remains the policy of the current administration that deer should not be introduced to Hawai'i Island. This policy was recently affirmed by the state legislature, which passed a law in 2012 prohibiting the interisland transport of deer.

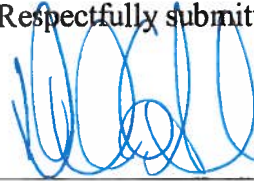
Despite the state's policies and prohibitions, in early 2011, department staff received credible reports of deer sightings on the Hawai'i Island and confirmed the presence of wild deer there with photographic evidence in April of that year. Since then, department staff and partners have been working to eliminate the deer from the island. To date, three deer have been shot by staff and it is not known how many more may remain on the island. Successful elimination of deer from Hawai'i Island is expected to require a considerable investment of public resources and the department wishes to encourage licensed hunters to assist in the effort to protect the big island's natural resources and farms by harvesting any deer encountered when legally hunting on private and public lands.

RECOMMENDATION:

The Department recommends that the Board:

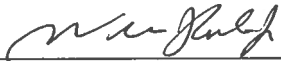
1. Declare that axis deer (*Axis axis*) are harmful to agriculture, native plants, and wildlife, and
2. Authorize the destruction of axis deer on Hawai'i Island without requirement of permit, for a period of five years from September 14, 2012 to September 13, 2017.

Respectfully submitted,



David G. Smith, Acting Administrator
Division of Forestry and Wildlife

APPROVED FOR SUBMITTAL:



WILLIAM J. AILA, Jr., Chairperson
Board of Land and Natural Resources