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GOVERNOR OF  
HAWAII



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

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**Testimony of  
SUZANNE D. CASE  
Chairperson**

**Before the House Committee on  
JUDICIARY & HAWAIIAN AFFAIRS**

**Monday, March 29, 2021  
2:00 PM**

**State Capital, Via Videoconference, Conference Room 325**

**In consideration of  
HOUSE CONCURRENT RESOLUTION 69, HOUSE DRAFT 1/  
HOUSE RESOLUTION 58, HOUSE DRAFT 1  
REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES TO  
SUBMIT A PETITION TO LIST THE PUEO AS A THREATENED OR ENDANGERED  
SPECIES UNDER THE ENDANGERED SPECIES ACT.**

House Concurrent Resolution 69, House Draft 1/House Resolution 58, House Draft 1 requests that the Department of Land and Natural Resources (Department) petition the United States Secretary of the Interior, through the United States Fish and Wildlife Service (USFWS), to protect the pueo (Hawaiian short-eared owl, *Asio flammeus sandwichensis*) as a threatened or endangered species. **The Department supports these resolutions and offers the following comments.**

Federal listing follows a strict process and analysis. Under the federal definitions, a species is listed as either an endangered species or threatened species depending on its status and the degree of threat it faces. An “endangered species” is one that is in danger of extinction throughout all or a significant portion of its range. A “threatened species” is one that is likely to become endangered in the foreseeable future throughout all or a significant portion of its range. A species is added to the federal list when it is determined to be an endangered or threatened species because of any of the following factors: (1) the present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; (5) other natural or manmade factors affecting its survival.

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

**ROBERT K. MASUDA**  
FIRST DEPUTY

**M. KALEO MANUEL**  
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  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

The Department believes that listing the pueo as a threatened or endangered species by the USFWS would increase protections for the species and align the protections afforded to pueo by both federal and state governments.

The Department lists the population of pueo on the island of O‘ahu as endangered under Hawaii Administrative Rules Chapter 13-124. Extensive loss of habitat owing to wide-ranging cattle pasturage, and conversion of large tracts of undeveloped land to residential and commercial uses, especially on O‘ahu, are thought to be contributors to the species’ decline. In addition to habitat destruction, the introduction of mammalian predators including cats, dogs, pigs, and mongoose, as well as trampling of nests by cattle, are potential threats to this ground-nesting species.

Due to its wide range and cryptic nature, no comprehensive population estimates have been conducted for this species. Reliable population estimates for a low-density and wide-ranging species such as the pueo are difficult to ascertain and requires significant effort. As such, relatively little information is available about the biology, habitat needs, limiting factors, or distribution of the pueo. A listing petition may move such research and inventory up in priority.

The Department recommends further studies be conducted on the pueo to increase our understanding on the population trends, distribution, genetics, and threat assessment, in support of a Federal listing determination. At this time, the lack of information is the greatest challenge in the conservation of this species.

Thank you for the opportunity to comment on these measures.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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Testimony Presented Before the  
House Committee on Judiciary and Hawaiian Affairs  
Monday, March 29, 2021 at 2:00 p.m.

By  
Nicholas Comerford  
Dean, College of Tropical Agriculture & Human Resources  
University of Hawai'i at Mānoa

HCR 69 HD1/ HR 58 HD1 – REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES TO SUBMIT A PETITION TO LIST THE PUEO AS A THREATENED OR ENDANGERED SPECIES UNDER THE ENDANGERED SPECIES ACT

Chair Nakashima, Vice-Chair Matayoshi, and members of the House Committee on Judiciary and Hawaiian Affairs:

Thank you for the opportunity to testify in support of HCR 69 HD1/HR 58 HD1. These resolutions request the Department of Land and Natural Resources to petition the U.S. Secretary of the Interior, through the United States Fish and Wildlife Service (USFWS), to protect the pueo, also known as the Hawaiian short-eared owl (*Asio flammeus sandwichensis*) as a threatened or endangered species.

Listing the pueo as a threatened or endangered species by the USFWS would increase federal protections for the population on O'ahu. There are several considerations that must be met for the USFWS to decide to list the species. In particular, they must determine if there are significant factors that preclude the species' continued existence throughout all or a significant portion of its range.

Studies began at the University of Hawai'i at Mānoa in 2017 that will contribute to the USFWS evaluation for listing, but further studies will likely be needed, and we note that the genetics study that will begin this fall is likely critical to determine whether this is a distinct population segment. Below is a summary of the studies to date, as well as ongoing studies.

- **2017–2019 Surveys.** Developed standardized survey protocol and implemented for the island of O'ahu, where pueo are state-listed as Endangered. Trained Hawaii Division of Forestry and Wildlife personnel across islands on protocol in 2019.
- **2017–present Community Reporting Website.** Developed community-science reporting and educational website, pueoproject.com. This website allows reporting of sightings of pueo, provides educational materials, and has been successful in increasing engagement with communities across the Hawaiian Islands.
- **2017–present Nesting Ecology.** Initial studies of nesting ecology showed pueo using diverse ecosystem types to nest, including high elevation native wet forest,

estuarine wetlands, grasslands, shrublands, and agricultural lands. Limited observations also suggest a potentially high rate of nest abandonment, and impacts from feral dogs and cats to nesting success.

- **2018–present Home Range.** Used VHF transmitters to evaluate site fidelity and home range on O‘ahu. Novel results include use of urban beach parks for foraging in addition to grasslands and shrublands, with occasional forays to forested areas, roosting in trees as well as ground-roosting, and relatively small home ranges with a high degree of site fidelity compared to continental populations (though transmitter batteries have failed, re-sights of banded individuals suggest they continue to use the same area multiple years in a row).
- **2018–2020 Occupancy.** Study on Maui evaluated factors influencing pueo occupancy, including foraging resources (rodents, invertebrates, birds, bats), elevation, and vegetation height. Vegetation height influenced detection probability, and elevation and the mass of available prey influenced occupancy (though results were varied among models and relatively weak due to a low number of pueo detections).
- **2019 Mortality.** Evaluated trends in pueo mortality data from 1993 to 2018 (N = 105 records). Results are consistent with previous studies that highlighted trauma as a key source of mortality, and suggest the importance of further investigation into strategies to minimize car and wind turbine strikes, as well as potential interactions with other factors such as rodenticide, competition with invasive barn owls, and emaciation. This study also highlighted the importance of state-wide reporting and database systems to collate key information for rare and threatened species.
- **2020–present Population Trends.** eBird-based study of population trends over time in the Hawaiian Islands. Results should be ready to share by this summer.
- **2020–present Movement.** GPS transmitter study to determine movement of O‘ahu pueo within (and potentially among) islands. Study has been delayed due to need to test/develop solar transmitter attachment to address charging concerns (as well as Covid and personnel delays). GPS-VHF battery-based GPS will be arriving in March and will provide ~3 months of movement data.
- **2020 – present Biocultural Knowledge and Value.** Review of the Hawaiian newspaper articles from ~1840-1940 to identify Indigenous ecological knowledge as well as biocultural values indicated through stories, chants, religions/cultural practices, and observations. Results should be ready to share by this summer.
- **2021 (beginning in fall) Genetics.** Study will assess population genetics of pueo and phylogenetics of the global metapopulation of Short-eared owls.

We support the consideration of pueo for listing, but we note that the data needed for evaluation of both threats to existence and population status (declining, stable, or increasing) are potentially lacking, and are likely to hinder the listing decision. However, the consideration for listing will have the advantage of bringing this issue to the forefront.

**The Kawaihapai Ohana**

**Thomas T Shirai Jr – Po’o**

**P O Box 601**

**Waialua, HI 96791**

**Email: [Kawaihapai@hawaii.rr.com](mailto:Kawaihapai@hawaii.rr.com)**

**March 27, 2021**

**Public Hearing**

**Monday, March 29, 2021 / 2:00PM**

**House Committee on Judiciary & Hawaiian Affairs (JHA)**

**Chair - Representative Mark M Nakashima**

**Vice Chair – Representative Scot Z Matayoshi**

**RE: Testimony of Support for HCR 69 HD1 & HR 58 HD1 (Requesting the Department of Land & Natural Resources to Submit a Petition to list the Pueo as a Threatened or Endangered Species Under the Endangered Species Act)**

**Aloha Chair Nakashima & Committee Members,**

I am testifying as an individual and Po’o of The Kawaihapai Ohana which is recognized as a Native Hawaiian Organization by The Department of Interior’s Office of Hawaiian Relation and one of the first to be on this listing in 2007. I am a descendant of a Piko Ohana of Waialua and lifetime resident of Mokule’ia serving my fourth consecutive term on the North Shore Neighborhood Board Sub-District 1 (Mokule’ia to Ka’ena Point). I’m recognized by SHPD as a Lineal Descendant of Kawaihapai Ahupua’a for my Kuleana to Malama Iwi Kupuna along with serving 2 terms on the Oahu Island Burial Council. I also served on the Office of Hawaiian Affairs Native Hawaiian Historic Preservation Council and DLNR Ka’ena Point Advisory Committee. Lastly I’m a member of the Mokule’ia Community Association.

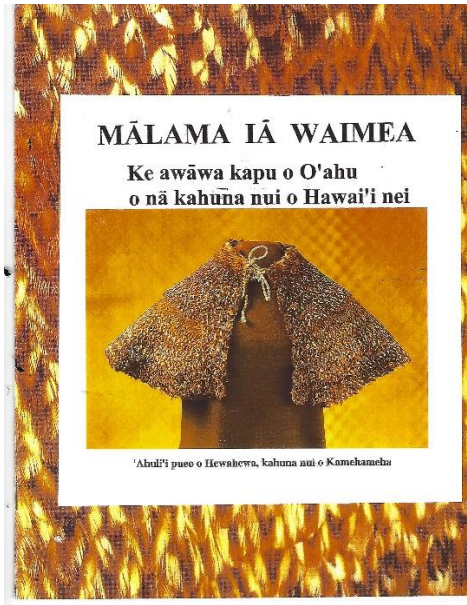
**Mahalo to Representative Patrick Branco for introducing HCR 69 & HCR 58 which is now amended to HCR 69 HD1 & HCR 58 HD1.**

As an individual and Po’o of The Kawaihapai Ohana I am testifying in Strong Support of HCR 69 HD1 & HCR 58 HD1. Geographically Pueo once inhabited many places throughout Hawaii along with their mo’olelo and Waialua has a deep relationship to the Pueo not only as an Aumakua or Endangered Species but are considered part of our Ohana just like Mano (shark). The mountain where Kuaokala Ridge and the USAF Ka’ena Point Tracking Station overlooking Ka’ena Natural Area Reserve (NAR) is named Pu’u Pueo and has a few Pueo that are still habitants of the area.

In 2017 an injured Pueo was rescued on Kaukonahua Road by Waialua resident Malia Rillamas and DLNR responded to the scene where they took custody of it however despite being tended to by a Veterinarian it was euthanized because it was in much pain. Since then I’ve been working with OHA

and DOFAW (Department of Forestry & Wildlife) to have the remains of the Pueo which is in there freezer to repatriate the Pueo to me to reinter it at Pu'u Pueo at Ka'ena Point overlooking Leina Ka Uhane. Experienced a lot of delays from DOFAW which needs to stop so the Pueo can make it's transition. It needs to be done making this aspect of Waialua Pono.

Among this photo's attached with this testimony is High Priest Hewahewa's cloak made of Pueo feathers and is the only one made it in existence. It's housed at the former Honolulu Academy of Arts holdings however hoping someday it will be transferred to join the Bishop Museum to be part of their feather capes and helmets collection. This is the cover of a brochure that was given to those attending a North Shore Neighborhood Board meeting in 1999 where a presentation to Waimea Valley was given.



Listing the Pueo as a threatened or endangered species per the Endangered Species Act is a step in the right direction.

Mahalo for the opportunity to provide Testimony of Strong Support for HCR 69 HD1 & HR 58 HD1

Thomas T Shirai Jr

Mokule'ia Waialua

**HCR-69-HD-1**

Submitted on: 3/27/2021 8:16:58 PM

Testimony for JHA on 3/29/2021 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Dana Keawe	Individual	Support	No

Comments:

I support hcr69 hd1

TESTIMONY IN SUPPORT OF HR 58 HD1/HCR 69 HD1  
REQUESTING THE DEPARTMENT OF LAND AND NATURAL  
RESOURCES TO SUBMIT A PETITION TO LIST THE OAHU PUEO AS A  
THREATENED OR ENDANGERED SPECIES UNDER THE ENDANGERED  
SPECIES ACT

Committee on Judiciary & Hawaiian Affairs

Hearing: March 29, 2021, 2:00 p.m.

Aloha,

I continue to support these two measures. An endemic species of Hawaii, the endangered Pueo is located on all islands in the Pae'aina. It holds a special place in the culture of the Hawaiian people and is most closely associated with 'aumakua, spiritual embodiments of kupuna and ancestors of different families.

Since 2016, measures at the legislature have been introduced to protect the Pueo, including adopting a resolution calling for a study by DLNR and the University of Hawaii. In 2017, an interim study report was provided to the legislature. That study contained a strong recommendation that further studies be conducted on distribution, biological threats and life history traits for this species. Estimated cost for a one-year state-wide inventory of Pueo was \$333,950; and \$165,188 for biological and cultural studies.

Since then, several bills were introduced to get appropriations for the study, with at least one reaching the conference stage, but unfortunately all bills failed. This year is not promising since the legislature is challenged with the impact of COVID-19 on state financial resources.

Thus, I appreciate these resolutions. Perhaps recognition by the United States Secretary of the Interior, through the United States Fish and Wildlife Service, to protect the pueo, will lead to the availability of federal funding to conduct the necessary study on Pueo in order to derive solutions to their survival.

Respectfully

Leimomi Khan





**HCR-69-HD-1**

Submitted on: 3/29/2021 10:09:33 AM

Testimony for JHA on 3/29/2021 2:00:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Molly Hagemann	Individual	Support	No

Comments:

I support the effort to assess the status of this owl, which is important both ecologically and culturally to the Hawaiian Islands. Anecdotal evidence indicates that its numbers are decreasing, and more data is needed to say with confidence that the population is declining. Understanding the status of the pueo and the threats to its long-term sustainability could also help us understand the threats faced by other endangered species in the Islands.