

Hawaiian Short-eared Owl

COMMON NAME: Hawaiian short-eared owl

HAWAIIAN NAME: *Pueo*

SCIENTIFIC NAME: *Asio flammeus sandwichensis*

LEGAL STATUS: State listed as endangered on O'ahu.

APPEARANCE: The pueo weighs between 7.3 and 16.8 ounces. The head contains black-rimmed yellow eyes surrounded by pale facial feathers and tiny, often concealed ear-tufts set close together near the center of the forehead. The majority of feathers on the body have dark centers with pale edges.



NATIVE RANGE: Pueo is an endemic subspecies of the nearly pandemic short-eared owl (*Asio flammeus*). They occur on all main Hawaiian Islands from sea level to 8,000 feet.

HABITAT: Unlike most owls, pueo are active during the day. They occupy a variety of habitats including forests, shrublands and urban areas, but are most commonly seen utilizing open habitats like grasslands.

DIET: Pueo primarily consume small mammals, specifically mice and rats, as well as insects. They are also known to eat small birds, although probably not regularly.

REPRODUCTION: The breeding biology of pueo is not fully known. Males try to attract females by performing aerial displays known as sky dancing. Pueo females build nests that consist of simple scrapes in the ground lined with grasses and feathers. Pueo lay between three to six eggs over a span of several months, resulting in babies being born at different times. Pueo nest on the ground and active nests have been found year round. Young depend on their parents for approximately six to eight weeks, and may fledge from the nest on foot before they are able to fly.



ECOLOGICAL THREATS: The primary cause of species decline is the loss and degradation of habitat and predation by introduced species, such as dogs, cats, rats and the small Asian mongoose. Collisions with moving vehicles and the hunting of pueo are increasing concerns. Other factors include disease and some environmental contaminants.

MCBH CONSERVATION MEASURES: Although pueo are occasionally seen at MCBH properties, the first known occurrence of a nesting pueo with eggs at MCBH occurred in January 2016 within Nu'upia Ponds Wildlife Management Area. Although predator traps are regularly deployed in the area, a subsequent visit to the nest did not reveal eggs or chicks.

Conservation measures to benefit pueo include:

- **Habitat protection and enhancement.** Maintaining healthy non-invasive vegetation and opportunistic and planned removal of non-native invasive vegetation. Pueo prefer tall grass for nesting.

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- **Limiting disturbance.** Monitoring of vegetation removal. Limiting vegetation removal near any nests. Established BMPs and conservation measures are employed whenever management activities are performed in or around the Nu'upia Ponds WMA that may disturb or modify endangered waterbird behavior; the pueo would benefit from the same measures.
- **Predator Control.** Pueo benefit from the on-going trapping of cats, mongoose, and rats within the Wildlife Management Area. Mammalian predator control is increased in the event of nesting activity.
- **Wildlife Friendly Lighting.** Although lighting on Base does not appear to be an issue, Natural Resources staff diligently work with Base and contract planners to incorporate International Dark-Sky lighting recommendations into all projects.
- **Monitoring to help direct management activities.** Natural Resources staff record occurrences and consult with USFWS as needed.
- **Education and outreach.** Development and distribution of informational material including videos, fact sheets, and briefings for military personnel and civilians on Base including new arrivals, and outreach with volunteers.

For more information: MCBH Integrated Natural Resources Management Plan, 2016. Section 6, 7.1, Appendix C & D.

PHOTOS

1. Pueo. Forrest and Kim Starr. <http://mauiinvasive.org/2015/02/05/pueo-or-barn-owl-heres-the-difference/>
1. Pueo nest and eggs. MCBH.