



Saving Native Hawaiian Forest Birds Is In All Of Our Hands

What is a forest bird?

Most forest birds are smaller than chickens, seabirds or geese, usually just a few inches from the tips of the tail to the bill. Most nest, rest and feed in shrubs and trees. Many are brightly colored and have unique songs.

What makes them special?

The ancestors of today’s Hawaiian forest birds arrived many thousands of years ago by accident, maybe caught up in storms while flying. To survive, they adapted what they ate and over time, even their beaks changed to take advantage of different foods. Without many predators, different species developed, sometimes living in just one area of one island. All of the birds celebrated in the **Makahiki o Nā Manu Nahele** are endemic to the Hawaiian Islands, found here and nowhere else in the world. They are irreplaceable.

What’s happening to them, why are they so rare?

Hawaiian forest birds once lived all the way down to the sea. Mosquitoes spread diseases between birds, so when they were accidentally brought to Hawai‘i, the birds could only survive where the mosquitoes could not reach them, high in the mountains. Cats, mongooses and rats eat eggs and kill adult birds. Deer, goats, sheep and pigs destroy forest bird habitats. Hawai‘i once had over 84 different species of forest birds. Today only 26 survive, and several may go extinct in just a few years.

How can you help?

- Keep cats indoors!
- Make sure mosquitoes cannot breed in standing water around your home or school.
- Teach each other about our native forest birds.
- Create and fly a flock of origami Hawaiian forest birds to help raise awareness!



Why do forest birds have different looks and calls?

Forest birds can see colors so bright feathers and patterns help them recognize other birds that may be either friends, mates or competitors. Calls and songs also communicate these things in the forest. Different bill shapes allow each species to eat something different from others.

What do they do for us?

Honeycreepers that specialize in eating nectar pollinate native flowering trees and shrubs. Seed-eating forest birds help spread seeds. Insect-eating birds control insects and recycle nutrients. Most of them use lichens and mosses for building nests. Their feeding and nesting work helps forests be more productive and healthy, making more oxygen and storing more fresh water – things all creatures need, including people! Hawaiian forest birds are important in Hawaiian *mo‘olelo*, *mele*, *oli*, *hula*. They have long been considered *kinolau*, and some *‘amaukua*.



Students across Hawai‘i are asked to create one origami of a native Hawaiian forest bird from their island for the **Makahiki o Nā Manu Nahele**, to inspire each community to learn about and care for our precious forest gems!

How should my pueo origami look?

Pueo are a “small owl” but big at up to 17” and compared to other birds in the islands. They are brown above, buff-white below and around their face and yellow eyes in a ring. They have streaks of brown on their buff-white chest and bellies, with dark brown wingtips. They have black beaks and feathered feet and legs.

More on *pueo* :

<https://dlnr.hawaii.gov/wildlife/birds/pueo/>

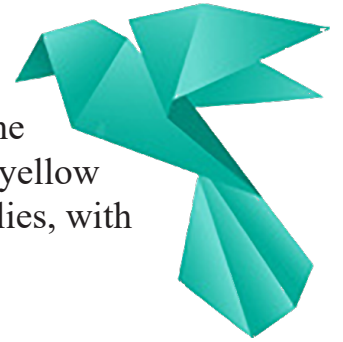


Photo: University of Hawaii

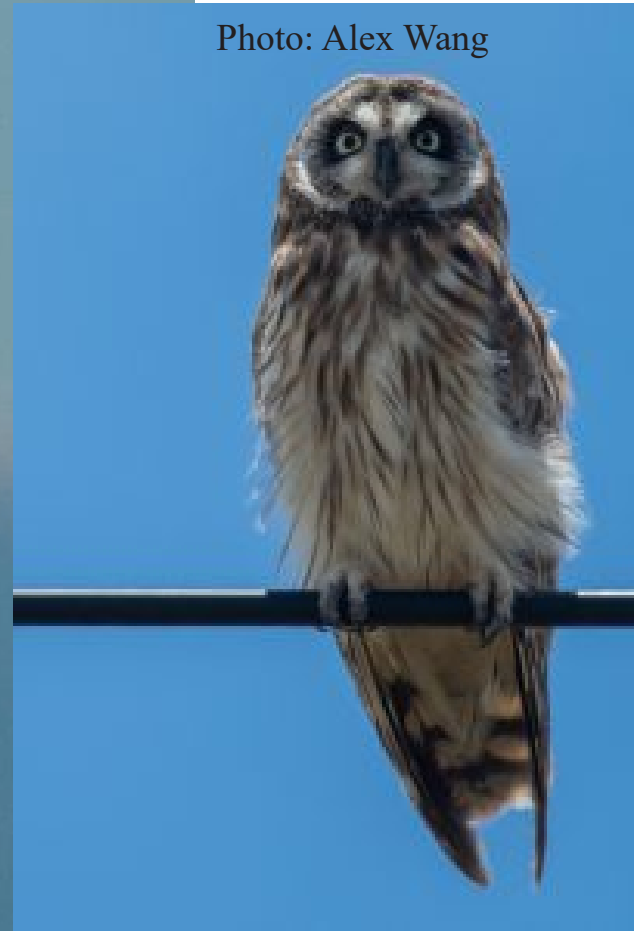


Photo: Alex Wang

Pueo (*Asio flammeus sandwichensis*)

Pueo are unique to Hawai‘i nei, but they have close cousins of short-eared owls on the mainland, they are considered a sub-species. They may have only arrived naturally in the islands a little before the first Polynesians settled here. Before people brought rodents with them, *pueo* ate other smaller birds including *nēnē* goslings – like all owls they are top predators and are mostly on all the islands except Hawai‘i Island, where they face competition with the *‘io*. Because of their hunting habits, they are active in the daytime, while most mainland owls hunt rodents at night. Like some other owls they nest on the ground, which is now a major problem since we introduced mongooses and cats which eat their young. Their young may be on the ground for two months before they can fly. Other modern problems are being hit by cars and pesticides. Because they are top-predators, poisons such as those used for rats can accumulate in the owl’s body. *Pueo* are found from sea level up to 8,000 feet and can fly over such large areas so its difficult to know how big their populations are, but they are considered endnagered.