

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?

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* 'oleo, mele, oli, hula. They have long been considered *kinolau*, and some '*amaukua*.

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!

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 origami 'ākohekohe look?

' \bar{A} kohekohe are about 7" long, with a slender black bill. They are black, but chest feathers are frosted grey, there are tufts of yellowish feathers at the base of their black legs, they have a light orange patch around each eye and a red-orange patch across the back of their neck. The crest of silvery feathers from the top of the head down to the beak really sets them apart from all other birds in Hawai'i nei! More on \bar{a} kohekohe:

https://dlnr.hawaii.gov/wildlife/birds/akohekohe/



'Ākohekohe (Palmeria dolei)

Once found on Maui, Moloka'i, Lāna'i and Kaho'olawe, from dry to wet forests, ' $\bar{a}kohekohe$ are now found only on about ten square miles of wet native forests on Haleakalā (endemic). They eat nectar and insects from many plants, especially *mamāne* and ' $\bar{o}hi'a$, which also seems to be their favorite tree to nest in. ' $\bar{A}kohekohe$ are the only native forest bird in Hawai'i nei that has a specialized crest or tuft of feathers on its head. This distincitve tuft probably helps pollinate its plant partners. Each pair needs a large territory, and they raise two to four chicks each year. They make a variety of sounds, but their Hawaiian name almost sounds like one of the croaking calls they make. Mosquitoes are moving higher into mountain habitats as the climate gets warmer. These non-native insects spread diseases that kill forest birds. Conservationists are fighting to keep ' $\bar{a}kohekohe$ from going extinct with many methods including releasing male mosquitoes that cannot breed with female mosquitoes. Fewer mosquitoes in our forests means a better future for our forest birds! Fences are being built to protect forests the birds need from grazing animals, which also spread new fungal diseases like Rapid ' $\bar{O}hi$ 'a Death. Some ' $\bar{a}kohekohe$ may be taken into captivity as a last resort. They are critically endangered, they could be extinct by 2030.