



## 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'oleo, 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 origami ‘akeke‘e look?

‘Akeke‘e are small, only about four to five inches long. Males are greenish above, yellow below, with a yellow crown and black mask over their eyes. The females are the same colors but not as bright. They have cone-shaped bills that are pale gray blue and they have pale legs. More on ‘akeke‘e:

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

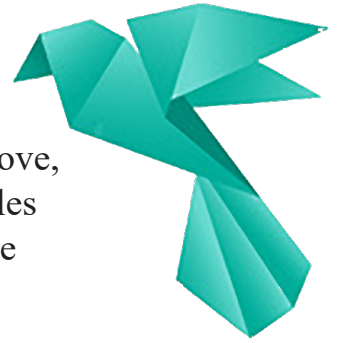


Photo: Lucas Behnke, TNC

Photo: Robby Kohley



## ‘Akeke‘e (*Loxops caeruleirostris*)

Found only on Kaua‘i (endemic), ‘akeke‘e are insectivores, or insect-eaters, traveling in pairs or family groups. Their bill is slightly offset between the upper and lower parts, which may be an adaptation to pry open flower parts, especially ‘ōhi‘a buds and young leaves. They are most often seen in the canopy of broad, mature ‘ōhi‘a and seem to nest only in that tree, so Rapid ‘Ōhi‘a Death directly affects this critically endangered bird. Mosquitoes are moving higher into mountain habitats as the climate gets warmer. These non-native insects spread diseases like avian malaria that kill forest birds. Conservationists are fighting to protect ‘akeke‘e from avian malaria by 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 help spread Rapid ‘Ōhi‘a Death.