



## 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 palila look?

*Palilia* are about six inches long, with a greyish back, yellow head and breast (like *mamāne* flowers!) with a greyish white belly and underparts. Males are slightly brighter in their yellow parts. Their black bills are strong, the upper part is slightly hooked.

More on *palila*:

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



photo:  
Jacob Drucker

## Palila (*Loxioides bailleui*)

*Palila* are seed-eaters, although they also eat insects and *naio* berries, their specialized beaks are perfectly adapted for one native shrubby tree that was once common on all islands: *mamāne*. Their finch-like beaks can crack open *mamāne* seeds and probably help spread them. They even usually nest in *mamāne*, which bloom at different times of the year depending on elevation, so *palila* fly up and down mountains to eat. Pairs stay together for many years, raising just two chicks a year when *mamāne* bloom well. Climate change is altering rainfall patterns, making *mamāne* blooming less reliable. *Palila* once lived on O‘ahu and Kaua‘i but are now found in just one small area on Mauna Kea, Hawai‘i Island. They are critically endangered because introduced grazing animals have impacted *mamāne* forests on all islands. 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 *palila*, 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.