

### 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.

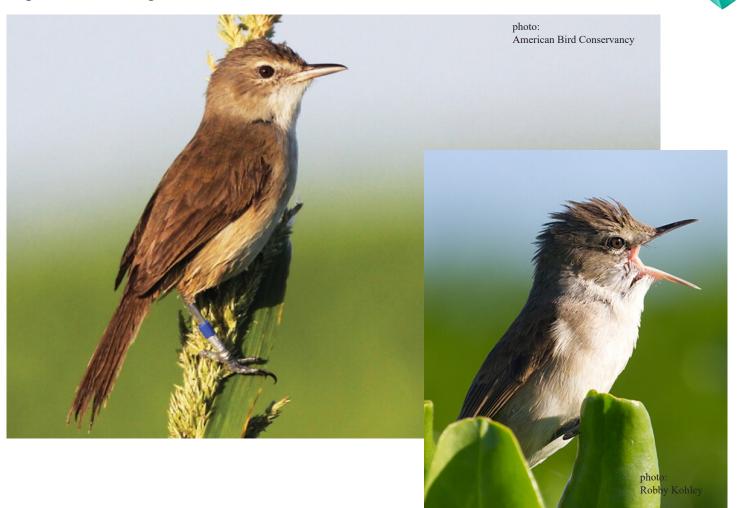
- Keep cats indoors!
- Make sure mosquitoes cannot breed in standing water around your home or school.
- Teach each other about our native forest birds.
- Create and fly a flock of origami Hawaiian forest birds to help raise awareness!

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 ulūlu origami look?

 $Ul\bar{u}lu$  are about five inches long, with a narrow beak. They are brown or tan colored above, sandy below. More on  $ul\bar{u}lu$ :

https://dlnr.hawaii.gov/wildlife/birds/nihoa-millerbird/



### **Ulūlu** (Acrocephalus familiaris )

The Nihoa *ulūlu* are insectivores, or insect-eaters and they specialize in native insects, especially miller moths and caterpillar species which reyly on native plants, giving them their English name, millerbirds. When rabbits were introduced to Laysan Island in 1903, they soon ate all the native plants the insects needed, so a close cousin to *ulūlu*, the Laysan millerbird, went extinct. On Nihoa, introduced rats and mice are problems for *ulūlu* because they eat eggs and as well as the plants. Introduced grasshoppers and plants also impact the native plants and ultimately, the *ulūlu*. Like all insectivores, they are very active and defend territories. There are only about 40 acres on Nihoa where they can survive, so today, *ulūlu* are critically endangerd. Beginning in 1923, all the rabbits were removed from Laysan Island and the plant life there has recovered. To help *ulūlu*, conservationists took about 50 to Laysan in 2011. Today, that "insurance" population has grown up to about 300. Climate change can bring bigger storms and rising sea levels to these small habitats on Nihoa and Laysan, but for now the *ulūlu* have a brighter future.