

'Akikiki

Some of the last of Hawai'i's famous honeycreepers

LOCATION: Kaua'i, Hawai'i

SPECIES: 'Akikiki, or Kaua'i creeper
(*Oreomystis bairdi*)

◆ If you are lucky and a fearless hiker, you might see one of the few remaining 'akikiki in the wild. It will not be easy.

Before humans arrived, the Hawaiian Islands were quite literally for the birds. With no land mammals around, birds filled most available niches: flightless ducks the size of turkeys grazing on the ground, eagles casting shadows from the air.

The forests in between were ruled by honeycreepers, a stunningly diverse bird group with a whole toolkit's worth of beaks between them. Like the more-celebrated Galápagos finches 5,000 miles (8,000 km) southeast, honeycreeper species proliferated through adaptive radiation, diversifying from an ancestral finch into more than 50 different types, each with a specialized bill shape that allowed it to patronize its chosen food source without competition.



An 'akikiki, hanging on

The arrival of successive waves of people shook things up. European colonizers in particular were very hard on the honeycreepers, cutting down their forest homes and bringing along egg-eating invasive species like rats and mongooses. There are now only 17 honeycreeper species left.

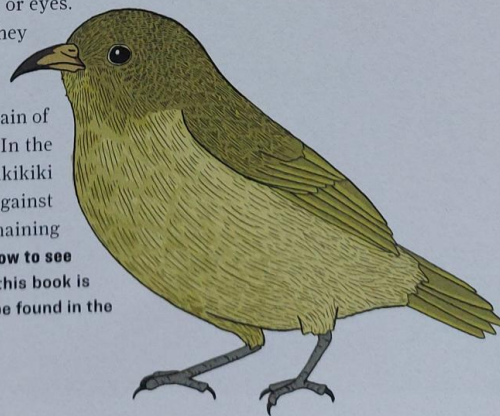
The 'akikiki, also known as the Kaua'i creeper, is the rarest of these, and among the most unassuming. Fewer than 10 individuals remain in the wild, all living in one patch of the Alaka'i Plateau, a swampy high-elevation forest in northwestern Kaua'i.

Here, the last 'akikiki flit among giant ferns and decomposing tree trunks. Small and agile, like nuthatches, they follow the contours of twisting branches, occasionally hanging upside down. Their pink bills are shaped like tweezers, perfect for levering up bark and extracting tasty insects.

They often forage in ō'hi'a trees and may even take a sip or two of nectar from their bright, brushlike flowers. They nest there, too, building soft cups out of moss and lichen for their small broods.

The main threat to 'akikiki (and several other honeycreeper species) is avian malaria, which was brought into and around Hawai'i by invasive southern house mosquitoes. Native birds here have no natural resistance to the disease. As the climate warms, the mosquitoes have been able to reach higher and higher elevations, where they sniff out birds and bite their exposed legs, bills, or eyes. Having hemmed the 'akikiki into their patch of forest, they continue to menace them.

Researchers are working on a biological control plan for the mosquitoes, including one involving a strain of bacteria that renders the bugs unable to reproduce. In the meantime, a captive breeding program, in which 50 'akikiki are cared for by humans, acts as an insurance policy against the total extinction of these birds, some of the last remaining members of one of evolution's greatest arrays. > **How to see them:** 'Akikiki may disappear from the wild by the time this book is published. If they are still around, they're most likely to be found in the Alaka'i Wilderness Preserve.



Bills, Bills, Bills

Hawai'i's many honeycreepers are thought to have descended from a small flock of rosefinches. These intrepid birds translocated from Asia to the American tropics around 5 million years ago, when the islands of Ni'ihau and Kaua'i were just starting to take shape in the middle of the Pacific Ocean. They found a home with plenty of different foods to choose from and no predators to worry about.

Over about 200,000 to 300,000 years—a pretty short time, evolutionarily speaking—the offspring of these finches spread out and relaxed into a variety of niches, with a variety of special bills. When it comes to demonstrating the sheer creative power of adaptive radiation, Hawai'i's assemblage of 54 living and extinct honeycreeper species outshines even the Galápagos finches (which, after all, number just 14). Here are some examples of their finest nosegear.

- 'Akeke'e (*Loxops caeruleirostris*) have cross-tipped bills that allow them to open the leaf buds of 'ō'hia—the forest's most common tree—and reach for small insects.



- Now extinct, Kona grosbeaks (*Chloridops kona*) had chunky, powerful beaks that could break open the hard seeds of naio tree fruits. The powerful cracking sound this produced once reverberated for long distances.



- Lesser 'akialoa (*Akialoa obscura*) had bills with a deep, near-90-degree curve, which they used to glean for bugs and dip into their favorite flowers. They were declared extinct in 1940.



- A very special beak can be a double-edged sword. 'I'iwi (*Vestiaria coccinea*) have a more all-purpose curved beak that can take advantage of several different flower species, which helps explain their continued success—although they, too, are losing ground.



- Kiwikiu (*Pseudonestor xanthophrys*), or Maui parrotbills, use their severely hooked bills like crowbars, prying up bark and chopping into fruits to find hidden insects. Like the 'akikiki, they are threatened by encroaching mosquitoes.



THE WILD LIFE OF A Native Hawaiian Conservationist

■ Ku'ulei Wong, a former field technician with the Kaua'i Forest Bird Recovery Project (KFBRP) and a Native Hawaiian, is currently pursuing a degree in botany, anthropology, and Hawaiian studies at the University of Hawai'i at Mānoa. She approaches conservation from the perspective that every phenomenon and living thing comes with an identity and a mo'olelo, or story.

• **How do you think about your own and your culture's connection to nature?**
Kānaka Maoli or Native Hawaiians view our land, 'āina, as an elder sibling: a being we respect and mālama (take care of). In return, it will protect and take care of us. Everything that is done to our land will fall back on us—if not our generation, then the next. When the land is rich with the essentials of life, we too are rich.

This connection comes from one of our origin stories with Papa and Wakea, or a Polynesian version of Mother Earth and Father Sky. Together they created the islands, other gods, and us. This made us related not only to the land but to other divine beings as well.

With the introduction of Western culture, there was a shift in how 'āina was viewed. Westerners saw it as something

to conquer, own, and make money [from]—a completely foreign ideology.

- **What is the meaning and importance of ancestral guardians for Native Hawaiians?**

In Hawaiian culture, we have this significant spiritual being called an 'aumakua, or ancestral guardian. It is believed that 'aumakua are family members who have passed into the next realm to protect and take care of the family or a specific place. In some cases, these beings are kākū'ai, or transfigured, into animals, insects, stones, and plants.

The pueo, or the Hawaiian short-eared owl (*Asio flammeus sandwichensis*), is one of my 'aumakua. Seeing a pueo is a hō'ailona, or sign, that danger could be nearby, but he is watching over you and protecting you. Lives have been saved because of them.

- **How do Native Hawaiians think about birds?**

Our native birds connect us to our culture in a deeply religious and spiritual way. They are the beings that can touch the heavens and come back down. Some species of birds are considered other forms of akua, or gods.

To be in the presence of our native birds means to be in the presence of our akua. They remind me of a past when our 'āina (land) was rich and full of life, a time before Western influences, a time when Hawaiian culture was thriving. Every time I am in their presence, I am incredibly grateful.

- **Did some birds also give valuable information to people?**

Traditionally, 'elepaio (*Chasiempis sclateri*), our native flycatcher, was used as a form of quality control for canoe building. These birds primarily feast on bugs and grubs.

If an 'elepaio is present and feeding on a tree, it is assumed that the tree has many holes, so it is not appropriate for a water vessel.

- **What would losing these species mean from a cultural aspect?**

We lose us. Our origin stories tell us everything that is living is connected to us. [Our native species] are used in our art, our homes, our tools, our stories, and our food. When we lose them, a large chunk of our culture disappears. Therefore, it is important to share these mana'o (thoughts), because once a species such as the 'akikiki is lost, they are near to impossible to recover.

In recent years KFBRP has been doing more events with our keiki (children). The fire I have seen in some of these little scientists really makes me hopeful that our birds may have a fighting chance. ■

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