

Palila (example)

- Only found in the dry forests of Hawai'i island
- Palila have a close relationship with the māmane tree
- Their large parrot-like bills are perfect for cracking open māmane seed pods
- They also eat naio berries and insects



- Māmane seeds are actually poisonous, but the palila have developed a resistance to its toxins.
- Palila are currently listed as an endangered species.

‘Akikiki (Kaua‘i Creeper)

- The ‘akikiki is endemic to Kaua‘i
- A small, stocky bird with a short tail
- The song of the ‘akikiki is a series of high-pitch chirps
- Forages in tree trunks for insects
- Nests only in the tops of ‘ohia trees



- Scientists estimate that there are **less than 500** ‘akikiki left in the wild.
- The remaining ‘akikiki are restricted to the misty mountain forests of Kaua‘i.

‘Akohekohe (Maui Crested Honeycreeper)

- One of the largest Hawaiian honeycreepers
- Only found on the windward side of Haleakalā on Maui.
- Glossy black feathers with orange streaks
- The white crest of the ‘akohekohe helps to pollinate the plants it visits for nectar!



- Has a variety of calls, but the most common is a repeating *whee-o whee-o*
- The ‘akohekohe is an endangered species, with less than 4000 birds in the wild.

‘Akepa

- ‘Akepa are some of the smallest honeycreepers in the Hawaiian Islands
- Males have bright orange/red feathers
- Three ‘akepa species were once found throughout the Islands; only one species remains in the native rainforests of the Big Island



- ‘Akepa have criss-crossed bills that allow them to open ‘ōhi‘a buds and koa pods in search of caterpillars and spiders.

‘Akeke‘e



- ‘Akeke‘e are only found in the mountains of Kaua‘i, where there may be as few as 1,000 birds left.
- The ‘akeke‘e is a close cousin of the ‘akepa from the Big Island.
- Like its cousin, it uses its offset bill to pry open ‘ōhi‘a blossoms looking for insects and spiders.

- These birds only create nests in ‘ōhi‘a trees.
- When making a nest, both the male and female ‘akeke‘e work together!

‘Elepaio



- Three ‘elepaio species are found on Kaua‘i, O‘ahu, and Hawai‘i.
- ‘Elepaio love to eat insects in old koa trees. Hawaiians recognized this behavior, and wise canoe makers would never use trees that ‘elepaio ate from.

- ‘Elepaio are among the most celebrated songbirds in the islands.
- These birds have shown impressive resistance to both disease and introduced predators.

‘Amakihi



- Recent research suggest that the ‘amakihi may have developed a resistance to avian malaria! Studying the ‘amakihi may help scientists to save other honeycreepers from extinction.

- Most common Hawaiian honeycreeper
- Small size (~4 in.)
- Three different species (Kaua‘i, O‘ahu, and Big Island/Maui/Moloka‘i)
- Powerful singer, calls can be heard over a mile away!
- Not a picky eater: likes nectar, insects, and fruit

‘Iwi



- Found on Hawai‘i, Maui, and Kaua‘i, possibly Moloka‘i and O‘ahu
- ‘Iwi use their curved beaks to extract nectar from native flowers
- Their brilliant red feathers were used in Hawaiian featherwork, most notably in the capes of royalty.

- ‘Iwi are threatened by habitat destruction, diseases, and introduced predators like rats.
- They are still common in some native rainforests.

Kiwikiu (Maui Parrotbill)



- You guessed it: the kiwikiu is only found on the island of Maui
- These are large honeycreepers with heavy parrot-like bills
- The kiwikiu uses its bill to strip bark off of trees in search of its favorite foods: moth caterpillars and beetle larvae.
- For years this species was called the Maui Parrotbill because the original Hawaiian name was lost. It wasn't until 2010 when the bird was given the name "kiwikiu" in an official naming ceremony.

Puaiohi



- The puaiohi is endemic to Kaua'i, and is one of the rarest birds in Hawaii.
- Its dark feather patterns allow it to virtually disappear into rainy mountain forests.
- Puaiohi love fruit like 'ōlapa, lapalapa, and pilo. They will also eat insects and snails.
- A breeding program was started in 1995 to prevent this species from going extinct.

'Akiapola'au



- 'Akiapola'au are only found on Hawai'i island.
- The 'akiapola'au is a highly specialized native bird that uses its curved beak to locate and excavate insects out of rotting wood.
- While looking for prey, it taps on the wood with its beak, making a sound like a **woodpecker**.
- These birds were common throughout native forests before the 1970s. Today, only ~1500 birds remain, mostly in the upland forests of Hamakua.

'Anianiau



- The smallest Hawaiian honeycreeper species
- 'Anianiau is only known from the mountain rainforests of Kaua'i.
- These little birds feed on the nectar of native trees and shrubs, but will also occasionally eat insects.
- While it can only be found in a small area, the wild population of 'anianiau is thought to be fairly healthy and stable.

‘Apapane



- Found on all of the Main Hawaiian Islands
- Feeds on nectar from the ‘ōhi‘a tree, but will sometimes eat insects
- One of Hawaii’s most versatile native songbirds, the ‘apapane has many different songs and calls
- ‘Apapane are important pollinators of ‘ōhi‘a
- ‘Apapane often travel in flocks while feeding, which may help them in competing for resources.
- ‘Apapane feathers were used to make feather cloaks, lei, and helmets.

‘Akialoa



- ‘Akialoa were a group of six large honeycreeper species from Kaua’i, O‘ahu, Maui, and Hawai‘i
- These birds had some of the longest beaks of all the honeycreepers
- Historical reports suggest ‘akialoa were insectivores that used their beaks to pull grubs out of rotten tree trunks and branches

- Sadly, all six species of ‘akialoa had disappeared by the 1940s, probably as a result of avian malaria, habitat destruction, and introduced competitors

J.K. Lepson, Cornell Lab of Ornithology

Stilt-Legged Owl



The Pueo Project

- Forest-dwelling owls that lived on Kaua‘i, O‘ahu, Moloka‘i, and Maui
- Long, stilt-like legs
- Large forward-facing eyes
- Could fly, but may have run across the forest floor
- Probably hunted for Hawaiian honeycreepers and flightless birds
- NOT a pueo

- Went **extinct** around the time of the Polynesian migration to Hawaii
- Stories of **menehune** may have been inspired by the Hawaiians’ first encounters with the bizarre stilt-owls.

Kona Grosbreak



Walter Rothschild, Bishop Museum

- Medium-sized honeycreeper
- Was only found in dry naio forests in Kona, Hawai‘i
- By the time of its discovery in 1887, it was already quite rare. It was reported that Hawaiians did not even have a name for it.
- Described as a slow, chunky bird that spent most of its time cracking open naio fruit with its massive beak.

- The Kona Grosbeak was last seen in 1892, only 5 years after it was discovered.

Mamo

- Two mamo species lived on Hawai'i and Moloka'i.
- These birds were close cousins of the 'iwi.
- Mamo used their long, sickle-shaped beaks to drink nectar out of native flowering plants
- Mamo were only found in the lowland forests, which made them vulnerable to introduced predators; the last mamo was seen in 1907
- Yellow mamo feathers were prized in Hawaiian featherwork



- The feather cloak of Kamehameha I used 450,000 yellow mamo feathers from 80,000 birds

Ō'ō

- Four species of Ō'ō lived on Kaua'i, O'ahu, Moloka'i, and Hawai'i.
- Historical records suggest these birds were once fairly common in mountain and lowland forests.
- Their medium-sized beaks allowed them to eat a variety of foods including nectar, insects, fruits, and even tree snails.
- One by one the Ō'ō species disappeared; the last Kaua'i Ō'ō was seen in 1987.



- Because the birds went extinct in modern times, sound and video recordings were made of the last Ō'ō in the wild.

'Ōma'o

- 'Ōma'o are small birds endemic to Hawai'i island.
- Their brown feathers help them to blend into their rainforest environments.
- 'Ōma'o are one of the only native frugivores in Hawai'i; they love 'ōhelo, 'ōlapa, and ākala (Hawaiian raspberry).
- These fruit-lovers play a crucial role in spreading seeds through native forests.



- While the wild population appears stable, the birds are only found on one island and may still need protection from habitat destruction and predators.

S

'Alalā (Hawaiian Crow)

- Once found on all the main islands, the 'alalā is now restricted to Hawai'i island.
- 'Alalā are remarkably intelligent birds, and have been observed using tools in captivity.
- They eat a variety of foods including insects, snails, fruits, and even other forest birds.
- The 'alalā is the rarest crow in the world, and has been extinct in the wild since 2002.



- The 'Alalā Project has brought the crow back from the brink of extinction, and has begun releasing individuals back into the wild under close supervision.

‘Ula-‘ai-Hāwane

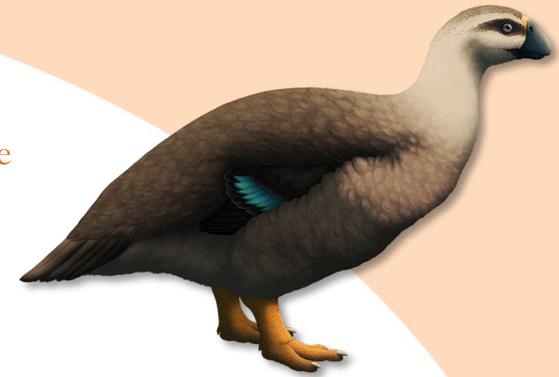
- Endemic to Hawai‘i island and Moloka‘i
- This bird’s name means “the red bird that eats unripe loulou palm fruit”
- ‘Ula-‘ai-Hāwane was often seen eating young fruit from loulou palms. Its short beak and wide mouth helped it to swallow the round palm fruits whole.



- As native forests were cleared, the loulou palms became harder to find, and the ‘ula-‘ai-hāwane was driven to extinction by the start of the 20th century.

Moa-Nalo

- Moa-nalo were some of the largest birds to ever live in the Hawaiian Islands.
- Four species lived on Kaua‘i, O‘ahu, Moloka‘i, and Lana‘i.
- These prehistoric flightless ducks were vegetarians; some species had “teeth” for crushing plant material.
- Some native plants evolved spines to protect themselves from grazing moa-nalo.



Nix Draws Stuff (alphynix)

- All four moa-nalo species went extinct soon after humans arrived in Hawai‘i. They were unknown to science until the 1980s.

Kaua‘i Mole Duck

- Endemic to the rainforests of Kaua‘i
- This bird was flightless and possibly blind.
- Its large shovel-like bill may have been used for finding insects and fallen fruit on the forest floor
- The mole duck probably went extinct soon after the arrival of humans.



- No one knew this species existed until the late 1990s, when scientists found its fossils buried in a cave on Kaua‘i.
- The discovery of the mole duck shows us how much there is to learn about the history of our native ecosystems!

Po‘ouli

- Endemic to the forest slopes of Haleakalā on Maui
- The po‘ouli used its sharp beak to dig into bark and mosses for its favorite food: native tree snails.
- The species was first described in 1973 by students from the University of Hawaii; the name “po‘ouli” means “black head”, a reference to the dark “mask” on its face.



Paul E. Baker, USFWS/USGS

- The po‘ouli population was ~200 birds in the 1970s, and only two birds were seen in 2004. No one has seen a po‘ouli since then, and it's possible that the species is now extinct.

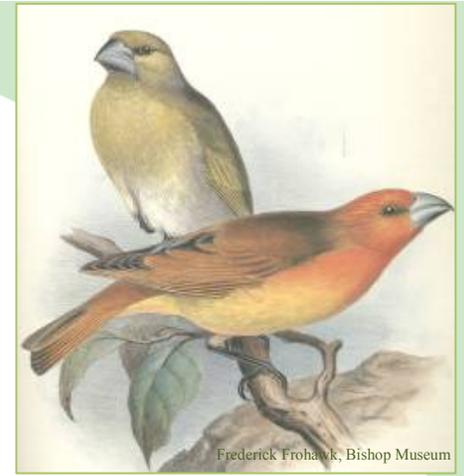
Moho (Hawaiian Crake)



Walter Rothschild, Bishop Museum

- Endemic to eastern regions of Hawai'i island
- The moho was one of several flightless Hawaiian birds that evolved in the absence of predatory mammals.
- Not much is known about its place in Hawaiian ecosystems, but it probably foraged on the ground for insects.
- Introduced mammals like rats, cats, and dogs found the moho to be easy prey, and the flightless bird had disappeared by 1900.
- Footage exists of its extinct relative, the Laysan crake.

Koa Finches



Frederick Frohawk, Bishop Museum

- Four species were found on Kaua'i, O'ahu, Maui, and Hawai'i island.
- Koa finches were seed-eaters, and they used their massive beaks to crack open the seed pods of koa, a'ali'i, loulou, and kanaloa. It also ate caterpillars.
- When first described in 1892, Western scientists noted that the Hawaiians were not familiar with these species; its name may have been "poupou" or "hopue".
- The clearing of koa forests and intense grazing by cattle destroyed much of their natural habitat; the koa finch was last seen in 1896.

O'u



Keulemans, Bishop Museum

- The o'u was once common on all of the major Hawaiian Islands.
- It was described as one of the strongest fliers of all the honeycreeper species, possibly capable of inter-island flight
- The o'u used its sharp, curved beak to open fruits from the 'ie'ie plant, its favorite food
- Unfortunately, the o'u was vulnerable to diseases, introduced predators, habitat destruction, and natural disasters.
- The o'u was last seen on Kaua'i in 1989; it is currently listed as "critically endangered", and is possibly extinct.

Nukupu'u



Frederick Frohawk, Bishop Museum

- Four nukupu'u species lived on the islands of Kaua'i, Maui, O'ahu, and Hawai'i.
- Nukupu'u used their long, curved beaks to pull insects, spiders, and grubs out of rotten tree trunks and branches.
- The nukupu'u was last seen on Kaua'i and Maui in 1998. With no sightings in the last 20 years, it's possible that this species is extinct. Like many other native birds, it fell victim to avian diseases and habitat destruction.