The bird who captured the heart of a demigod

The day that Barthold Lohmann stepped into the rainforests on Hawai'i Island, it would've undoubtably been warm and moist, as tropical rainforests tend to be. A crew member of James Cook's third (and final) expedition to the Hawaiian Islands, it is not difficult to imagine Lohmann sweating through his cotton layers, trekking through vibrant greens and colourful blooms, determined to capture and collect specimens to bring back home with them. Though we lack details of day, it is easy to fill in the gaps: the fiery red birds would have inevitably caught his eye as they flitted from flower to flower. Standing at an average of 15 cm (6 inches), the 'I'iwi (*Vestiaria coccinea*) is an absolute stunner: a downward-curving beak the colour of the soft pink of salmon, wings and tail the black of coal, and head and body a shock of bright crimson. Even amongst the lush colours of the rainforest, the 'I'iwi is impossible to miss; looking at it, it is not difficult imagine how such a bird would have garnered the affections of the great Hawaiian demigod, Māui.

Māui, looked upon in some stories as the "Hercules of Polynesia", was said to have a particular affinity towards the native forest birds. Long ago, the birds of Hawai'i could be heard, but never seen, at least to the commonfolk; the ancient people of the islands could hear the flutter of wings and the sweet melody of birdsong, but the birds themselves were visible only to Māui. Born with clear vision, he adored the birds, and painted them bright reds and golds; he made the 'I'iwi particularly vibrant, and granted it a unique call that resonated through the forest. One day, after a conversation with a boastful god, Māui decided to lift the veil that concealed the birds, allowing their beauty to be seen for the very first time, marking the beginning of a similar love affair, this time between the bird and the people of the islands.

The 'I'iwi, or the scarlet honeycreeper, is today an emblematic bird of Hawai'i. First described by Georg Forster in 1780, it is the third most common native land bird in the islands, and is a close relative of the 'Apapane, another startlingly red bird in the region. Mainly nectivorous, its long bill is specialised to retrieve nectar from flowers of Hawaiian lobelioids and the 'ōhi'a lehua (*Metrosideros polymorpha*) trees. The honeycreeper is an important pollinator in the region, particularly of the 'ōhi'a trees. The 'I'iwi are lively, and raucous; they rarely stop moving, and call often as they forage, with a song loud enough to be heard throughout the forest. The song of the 'I'iwi is less of a sweet melody, and more the peculiar combination of whistles resembling a squeaky door hinge.

The 'I'iwi have captivated the people of the Hawai'i for centuries, a relationship most notoriously demonstrated by the intricate art of Hawaiian feather work and trade. The red feathers of the 'I'iwi were highly prized by Hawaiian nobility (the *ali'i*); bright and striking, they were considered sacred, and were used to decorate the '*ahu'ula* (feather cloaks), *mahiole* (feathered helmets), and leis. A mark of societal rank, these adornments were worn only into battle, or on special occasions. The feathers were also used to create portraits of Hawaiian gods, such as the war god Kuka'ilimoku.



The 'I'iwi, photographed from the biodiversity museum's collection. Property of the Biodiversity Museum Göttingen.

Thousands of the feathers would be arranged in bold patterns, tightly woven together to give off a velveteen appearance. The 'I'iwi has also stamped its presence throughout Hawaiian culture, through its pervasiveness in Hawaiian chants and hulas, through Hawaiian songs (such as "Sweet Lei Mamo"), and through glossy postcards and calendars in gift shops. Once, the 'I'iwi could be found on all of the main Hawaiian Islands, from coastal lowlands to high mountain forests; today, over 90% of the 'I'iwi population resides in high-altitude forests (between 1,300m and 1,900m in elevation) on the islands of Maui, Hawai'i, and Kaua'i, with remnant populations on the smaller islands. Like the 'Apapane, the 'I'iwi are altitudinal migrants, following the progress of flowers as they develop throughout the year. This habit of seeking food at lower elevations has, however, proved to be detrimental to the scarlet honeycreeper, exposing them to the biggest threat to their existence thus far: the mosquito.

Alas, even the love of a demigod cannot protect the 'I'iwi from the consequences of colonialism: since 2016, the IUCN has classified the 'I'iwi population as endangered. The main threat? Disease. In the 19th century, European settlers brought with them a host of non-native mammals and insects. One of these, the mosquito, is a carrier of Avian malaria (Plasmodium relictum) which has been identified as the primary driver of declines in abundance and distribution of the 'I'iwi since the 1900s, with around 90% of exposed birds dying. At higher elevations, the 'I'iwi thrive, as mosquitoes are unable to survive the cooler temperatures. The move is not a long-term solution: climate change is a compounding threat, as warmer temperatures allow mosquitoes to move into higher elevations. The 'I'iwi is also facing threats to its habitat, due to uncontrolled grazing by feral pigs and goats, and to important food sources such as the ōhi'a trees, which are currently facing large-scale pathogen-induced dieback. They also fall prey to various non-native predators introduced by settlers, such as cats and mongooses.

The 'I'iwi is nothing, however, if not a fighter, and there are various efforts that exist today to help them survive. In 2017, after years of petitions, the U.S. Fish and Wildlife Services listed the 'I'iwi as Threatened under the Endangered Species Act (ESA), a move that comes with various protection programs. Organizations, such as Maui Forest Bird Recovery Project, are actively working to save the 'I'iwi's habitats, and scientists are constantly at work to uncover the intricacies of avian malaria. In Hawai'i, the historical relationship between the people and the native forest birds have evolved: today, Hawaiian artists use dyed feathers from common domestic birds, such as geese and pheasants, in a bid to protect the honeycreeper.



Feather portrait of the Hawaiian war god Kuka'ilimoku, photographed from the university's ethnological collection. Property of the University of Göttingen.

The move comes at a cost, however: the dyed feathers tend to be too big, requiring newer methods of weaving, meaning that traditional methods will eventually be lost to time.

Today, native forests birds, such as the 'alala (the Hawaiian Crow) or the California Condor, have since disappeared from the forests of Hawai'i, existing only in captivity. Is this the fate that awaits the lovely 'I'iwi? To exist only in glossy postcards and calendars, only in stories to pass down to future generations, only as a name for a bird that no longer exists? Only time will tell if the 'I'iwi will face the same fate as the demigod who once loved it enough to paint its plumage a dazzling, fiery red: deigned to mythology: the tale of a bird that once soared through the rainforests of Hawai'i, a bright streak of scarlet and black amongst lush, verdant green.

Jasmine Kloos

Specimen of an 'I'iwi (*Vestiaria coccinea*), collected in Hawai'i sometime during James Cook's third great expedition (1776-1780). Feather portrait of a god was collected in Hawai'i, in the 18th century.

The 'I'iwi is part of the collection of the Biodiversity Museum of Göttingen (ZMUG 23364). The feather portrait is part of the ethnological collection of the University of Göttingen.