Hawai‘i Volcanoes National Park
On the Brink of Extinction

National Park Service
U.S. Department of the Interior

2016 National Park Service CENTENNIAL
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Paradise in Peril

Life, in all of its diversity, is precious. Across our planet, plants and animals arrive by several paths and evolved into species that are each amazing, unique, and beautiful. Yet, with deteriorating changes to their environments, many species cannot adapt quickly enough, their populations decline until, tragically, they vanish forever.

In Hawai‘i, the problem is magnified. Life arrived to this isolated island chain, and against all odds, some species survived. For hundreds of years, descendants of the pioneers formed new interrelationships with the land and other forms of life. From cave dogs to the summits of towering volcanoes, from the harsh deserts to lush rainforests, from lava flows to caves—new life evolved and biological communities in the islands entered a state of balance and līkāhā (harmony).

Disruption to the balance began with the arrival of Polynesians. To feed and nourish their growing populations, Hawaiians burned lowland forests for cropland, converted coastlines into fishponds, and diverted streams to create flooded fields. Loss of habitat increased exponentially after western contact in 1778. Vast forests were cleared to create pasture, lumber, sugar cane and other agriculture. As exotic species spread, their seeds, while feral pigs root and destroy their seedlings, increased hunting and the introduction of predators (such as mongooses, dogs, and cats), rats had become extinct on all islands, except Hawai‘i Island, by 1900. By 1952, their population had plummeted to just 30 birds. Luckily, this species breeds well in captivity, and conservationists saved them from extinction.

Nēnē (Hawaiian goose), Branta sandvicensis

The Last of the Island Geese

Wild nēnē, the world’s rarest goose, are only found in Hawai‘i. Beginning in the 1960s, nēnē reintroduced into the wild, and by 2010 there were over 2,000 birds statewide. Nēnē evolved without people. They have no instinct to avoid us and may approach without fear. If fed, they quickly associate humans with food. These birds learn to frequent feeding grounds. The female builds a simple ground nest where they meet their relatives and potential mates. They usually mate for life. Young nēnē return. Hope remains in these pig-free zones. Increasing the number of plants in the wild is critical to the survival of ‘ōhā wai. Towards that end, botanists collect air-layered cuttings from the wild and protect wild nests and goslings from alien predators. Unfortunately, many deaths today are still associated with humans. Nēnē evolved without people. They have no instinct to avoid us and may approach without fear. If fed, they quickly associate humans with food. These birds learn to frequent feeding grounds. The female builds a simple ground nest where they meet their relatives and potential mates. They usually mate for life. Young nēnē return. Hope remains in these pig-free zones. Increasing the number of plants in the wild is critical to the survival of ‘ōhā wai.

Today, park managers work to improve nēnē habitat and protect wild nests and goslings from alien predators. Unfortunately, many deaths today are still associated with humans. Nēnē evolved without people. They have no instinct to avoid us and may approach without fear. If fed, they quickly associate humans with food. These birds learn to frequent feeding grounds. The female builds a simple ground nest where they meet their relatives and potential mates. They usually mate for life. Young nēnē return. Hope remains in these pig-free zones. Increasing the number of plants in the wild is critical to the survival of ‘ōhā wai.
Ahinahina (Mauna Loa silversword), Argyroxiphium kauense

Wondrous Treasure on Mauna Loa

One of the world’s rarest plants survives only on the flanks of Mauna Loa between 5,000 to 8,000 feet (1,500 to 2,500 m). Ahinahina are named for the Mauna Loa silversword—closely related to A. stellerianum in the family Asteraceae—and they are a flagship species for the island because they flourish on the island’s southern side. The only place they’re found is Mauna Loa. 

Although they share the same ancestor, Mauna Loa silverswords are distinct from the other species found on Mauna Kea and Haleakala. Mauna Loa silverswords generally grow fewer “petals” in their flowerheads and have thinner, flatter leaves than their other cousins. Also remarkable is their life history. It is once in their lives and only after 10 to 30 years that ahinahina send up a stalk bearing fragrant flowers as tall as 9 feet (3 meters). Within weeks it goes to seed and to its life is concluded. 

Feral Animals Lead to Their Decline

Foraging ungulates, like cattle, sheep, and goats, love silverswords and devour any they find like a child does ice cream. By the early 1990s, the entire species was limited to a hard-to-find patch of 10 acres. As few as one to 1,000 ahinahina hatchlings survive to adulthood. 

Seabirds Nest in Alpine Burrows

The ‘ua‘u, or Hawaiian petrel, is a federally endangered native seabird. Adults are six inches long from head to tail and have a wing span of three feet. They make a variety of haunting calls—one gives the birds their distinctive name: oo-AH-oo. The only known nest sites on Hawai‘i Island are in northern Kohala and within the park on the lower alpine and subalpine slopes of Mauna Loa. Wildlife biologists estimate that only 50 to 60 breeding pairs nest in the park, so the odds of encountering them are quite low. 

To protect ‘ua‘u from feral cats, the national park is constructing a large-scale barrier fence around the primary nesting colony on Mauna Loa. To help minimize disorientation of night-flying petrels, new lighting must meet specific requirements to protect potentially deadly groundings. Hawai‘i Volcanoes National Park. The female waits until night to crawl ashore and uses her hind flippers to dig a narrow egg chamber in the sand near vegetation. After she deposits and covers an average of 180 eggs, she returns to the sea, leaving the eggs to incubate during the next two months. Hatchlings emerge one or two days apart and feed the chick for an additional four months. By the end of this year, the hatchling has grown to a height of almost two feet and is considered an adult. 

Taking turns, both parents incubate the egg for 60 days and feed the chick for an additional four months. By the end of the year, the hatchling has grown to a height of almost two feet and is considered an adult. 

A smaller cousin—the Hawaiian hawksbill turtle. Green sea turtles are common around the island, but our coastal waters also harbor its more elusive and rare cousin—the Hawaiian hawksbill turtle. Called honu‘ea or ‘ea by Hawaiians, they feed almost exclusively on sponges. Males never come to shore and females only do so in order to nest. Of the few beachnesting sites available, hatchlings in March are directed by the light of the full moon toward the ocean. To discourage predators, always keep beaches clean of food scraps. Follow these simple precautions and honu‘ea might have a chance for a bright future in Hawai‘i.

Honu‘ea (Hawaiian hawksbill turtle), Eretmochelys imbricata

The “other” Sea Turtle in Hawai‘i

Honu‘ea and green sea turtles are common around the island, but our coastal waters also harbor its more elusive and rare cousin—the Hawaiian hawksbill turtle. Called honu‘ea or ‘ea by Hawaiians, they feed almost exclusively on sponges. Males never come to shore and females only do so in order to nest. Of the few beachnesting sites available, hatchlings in March are directed by the light of the full moon toward the ocean. To discourage predators, always keep beaches clean of food scraps. Follow these simple precautions and honu‘ea might have a chance for a bright future in Hawai‘i.