

Seabirds



Photo: Steve McConnell

'Akē'akē or Band-rumped storm-petrel

Oceanodroma castro

SPECIES STATUS:

Federal Candidate for Listing

State Listed as Endangered

State Recognized as Indigenous

NatureServe Heritage Rank G4 - Apparently Secure

Regional Seabird Conservation Plan - USFWS 2005

SPECIES INFORMATION: The 'akē'akē or band-rumped storm-petrel is a medium sized, highly pelagic storm-petrel (Family: Hydrobatidae), and is the smallest and rarest seabird that breeds in Hawai'i. Adults are primarily blackish-brown and have a sharply defined narrow white band across rump area. Flight is characterized by shallow wing beats and long glides just over the surface of the ocean. Foraging alone or with conspecifics, 'akē'akē feed while sitting on the water or by dipping prey while flapping just above the ocean surface, often pattering water with feet. There is no diet information from Hawai'i, but elsewhere diet primarily consists of small fish, squid, and some crustaceans. Breeding biology in Hawai'i is poorly known, but these birds are known to nest in burrows or natural cavities in a variety of high-elevation, inland habitats. As with most seabirds, a single egg is laid per season. In Hawai'i, eggs are laid between May and June, and nestlings fledge in October. 'Akē'akē likely do not breed until they are three to seven years old, and likely live for 15 to 20 years.

DISTRIBUTION: Historically, was abundant and widespread throughout Main Hawaiian Islands (MHI). Nesting colonies occur on Kaua'i at elevations around 600 meters (1,950 feet), on Maui (in Haleakalā National Park) and the island of Hawai'i (in Hawai'i Volcanoes National Park) at elevations greater than 1,200 meters (3,900 feet), and on Lehua. Outside of Hawai'i, the species nests in Japan and on the Galapagos, and on several islands in the Atlantic. At sea, they occur in the Pacific and Atlantic oceans.

ABUNDANCE: In Hawai'i, breeding population size is unknown, but likely very small. The breeding population on Kaua'i was estimated at between 171 and 221 breeding pairs in 2002. Worldwide population is unknown, but likely less than 25,000 breeding pairs.

LOCATION AND CONDITION OF KEY HABITAT: Breeds in a variety of remote, high-elevation, inland habitats. On Kaua'i, colonies are in steep valleys vegetated with shrubs and grasses. On Maui and the island of Hawai'i, colonies occur on high, barren lava flows. Nesting in burrows or crevices in rock or lava has also been documented using artificial nest boxes.

THREATS: Due to its very small population size in the Hawaiian Islands, the 'akē'akē is susceptible to stochastic, genetic, environmental, and demographic events that could lead to extirpation. Important threats to the species include:

- **Introduced predators.** Adults and chicks are susceptible to predation by pigs (*Sus scrofa*), rats (*Rattus* spp.), feral cats (*Felis silvestris*), and the small Indian mongoose (*Herpestes auropunctatus*).
- **Feral ungulates.** Pigs, goats (*Capra hircus*), and sheep degrade nesting habitat.
- **Artificial lighting.** Street and resort lights, especially in coastal areas, likely disorient fledglings, causing them to eventually fall to the ground exhausted or increasing their chance of colliding with artificial structures (i.e., fallout). Once on the ground, fledglings are unable to fly and are killed by cars, cats, and dogs (*Canis familiaris*) or die of starvation or dehydration.
- **Collisions.** Adults and fledglings are susceptible to mortality from collisions with obstacles such as communication towers and utility lines while commuting between inland nest sites and the ocean at night.
- **Colony locations.** The remoteness of colonies, as well as the habitat in which they occur (e.g., steep terrain or dense forest), complicates predator and ungulate eradication or control.

CONSERVATION ACTIONS: Past actions directed at ‘a’o or Newell’s shearwater (*Puffinus auricularis*) that have benefited ‘akē’akē include the rescue and rehabilitation of downed fledglings by the Save Our Shearwaters (SOS) program and efforts to shade resort lighting and streetlights. Current and future conservation efforts on Kaua’i to benefit the ‘akē’akē, ‘a’o, and ‘ua’u (Hawaiian petrel [*Pterodroma sandwichensis*]) include efforts to reduce and shield lighting, control predators and invasive species, conduct surveys to locate additional colonies, and develop revised population estimates using at-sea survey data. In addition to these efforts, future actions specific to Hawaiian populations of ‘akē’akē should include the following:

- Locate potential sites for the establishment of new breeding colonies.
- Continue efforts to eradicate and control predators and ungulates, particularly on Lehua where birds have been recently observed.
- Continue to identify fallout areas and minimize effects of powerlines and artificial lights.
- Continue to support the SOS program, particularly the public outreach about light fallout and its rescue and rehabilitation program. Consider establishing similar programs on other islands where appropriate.

MONITORING: Conduct at-sea and terrestrial surveys in known and likely habitats to evaluate the population size and status, and to locate unidentified breeding colonies.

RESEARCH PRIORITIES:

- Investigate new technologies or adapt existing technologies (e.g., radar, at-sea surveys, mark/recapture) to ascertain population status and trends.
- Evaluate life history, habitat requirements, reproductive biology, and population status to assess management needs and conservation status of this poorly known species.
- Identify factors currently limiting populations.
- Evaluate mortality related to powerlines and coastal lighting.

References:

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