

Forest Birds

Kaua'i 'Akialoa

Hemignathus procerus



Picture: Rothschild Collection

SPECIES STATUS:

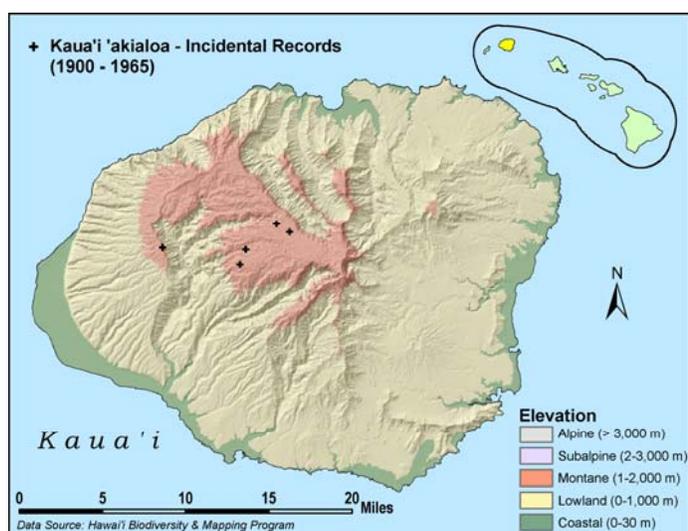
Federally listed as Endangered
State listed as Endangered
State recognized as Endemic
NatureServe Heritage Rank GX – Presumed extinct
IUCN Red List Ranking – Extinct
Draft Revised Recovery Plan for Hawaiian Forest Birds – USFWS 2003

SPECIES INFORMATION: The Kaua'i 'akialoa is perhaps the most morphologically specialized of the Hawaiian honeycreepers (Family: Fringillidae) having a decurved bill that is up to half the length of their body. Both sexes are mostly olive-green; males being somewhat brighter, slightly larger, and have a longer bill. The life history of the Kaua'i 'akialoa is poorly known and mostly based on observations from the turn of the last century. The species principally foraged for arthropods on the trunks and branches of 'ōhi'a (*Metrosideros polymorpha*) and koa (*Acacia koa*) trees, and hapu'u tree ferns (*Cibotium* spp.) by using its bill to probe bark crevices, decaying wood, epiphytes, and organic matter; observed to insert its entire bill into crevices. Foraging behavior has been described as being similar to that of a woodpecker or creeper. The 'akialoa also took nectar from 'ōhi'a and lobelia (*Campanulaceae*) flowers. Nothing is known about its breeding biology. 'Akialoa also occurred on the islands of Hawai'i, O'ahu, and Lāna'i. Some authors consider each island population as a separate species, others lump all into a single, polytypic species. Regardless, none have been observed for at least 60 years.

DISTRIBUTION: Unknown. Probably extinct. The Kaua'i 'akialoa was last seen in the Alaka'i swamp. Original range likely included all forested regions of Kaua'i.

ABUNDANCE: Unknown. The Kaua'i 'akialoa was last observed in 1969, and is probably extinct. Extensive surveys in 1989, 1994, 1996, and 2000 did not detect the species. Historically, the species was reported to be fairly common.

LOCATION AND CONDITION OF KEY HABITAT: Unknown. In the late 1800s, the Kaua'i 'akialoa occurred in



most forests on Kaua'i from between 200 and 1,500 meters (650 – 4,875 feet) elevation. The species was last observed in the Alaka'i Wilderness Preserve.

THREATS: Causes of the decline of this species are unknown. However, 'akialoa likely were susceptible to the same factors that threaten other native Hawaiian forest birds, including: loss and degradation of habitat, predation by introduced mammals, and disease. For Kaua'i 'akialoa populations, the following likely was of particular concern:

- Disease. Avian pox (*Poxvirus avium*) lesions are noted in historic accounts and occur on museum specimens. Perkins (1903) noted Kaua'i 'akialoa was "grievously affected by...swelling on the legs and feet, as well as on the head at the base of the bill, and on the skin around the eyes."

CONSERVATION ACTIONS: If the species persists, it likely benefits from management activities designed to conserve other endangered forest birds on Kaua'i, including the establishment of the Alaka'i Wilderness Preserve, regular surveys of forest bird populations, monitoring of habitat conditions, studies of disease and disease vectors, control of feral ungulates through public hunting, and public education efforts featuring Kauai's endangered forest birds. Should this species be rediscovered, the Rare Bird Recovery Protocol outlined in the USFWS Draft Revised Recovery Plan for Hawaiian Forest Birds would be implemented, and management in anticipation of that possibility should include:

- Continue protection and management of wildlife sanctuaries and refuges.

MONITORING: Continue forest bird surveys and habitat monitoring. This information is needed to assess the efficacy of habitat management efforts.

RESEARCH PRIORITIES: Research priorities for most Hawaiian forest birds include developing improved methods for controlling rats (*Rattus* spp.) and feral cats (*Felis silvestris*) in native forests, determining the ecological requirements of *Culex* mosquitoes at mid- and high-elevation forests, and developing methods to control mosquito populations. Given that this species is likely extinct, there are no research priorities specific to Kaua'i 'akialoa.

References:

- Foster JT, Tweed EJ, Camp RJ, Woodworth BL, Adler CD, Telfer T. 2004. Long-term population changes of native and introduced birds in the Alaka'i swamp, Kaua'i. *Conservation Biology* 18:716-725.
- Lepson JK, Johnston SM. 2000. Greater 'akialoa (*Hemignathus ellisianus*) and lesser 'akialoa (*Hemignathus obscurus*). In *The Birds of North America*, No. 512 (Poole A, Gill F, editors.). Philadelphia, (PA): The Academy of Natural Sciences; and Washington DC: The American Ornithologists' Union.
- Perkins RC. 1903. Vertebrata. Pp. 365-466 In *Fauna Hawaiiensis*. Volume 1, Part IV (Sharp D, editor). Cambridge, UK: University Press.
- Scott JM, Mountainspring S, Ramsey FL, Kepler CB. 1986. Forest bird communities of the Hawaiian islands: their dynamics, ecology and conservation. Lawrence, (KS): Cooper Ornithological Society.
- U.S. Fish and Wildlife Service. 2003. Draft revised Recovery plan for Hawaiian forest birds. Portland, (OR): U.S. Fish and Wildlife Service. 428 pp.