



Picture: Rothschild Collection

Forest Birds

Kaua'i nuku pu'u

Hemignathus lucidus hanapepe

SPECIES STATUS:

Federally Listed as Endangered

State Listed as Endangered

State Recognized as Endemic

NatureServe Heritage Rank G1T1 – Critically Imperiled

IUCN Red List Ranking – Critically Endangered

(Potentially Extinct)

Revised Recovery Plan for Hawaiian Forest Birds – USFWS 2006

SPECIES INFORMATION: The Kaua'i nuku pu'u is a large, short-tailed Hawaiian honeycreeper (Family: Fringillidae) with a long, thin decurved bill; the lower mandible is half the length of the upper mandible. Nuku pu'u also are known from O'ahu (*H. l. lucidus*) and Maui (*H. l. affinis*); the O'ahu subspecies is certainly extinct. Currently, all nuku pu'u are considered one species, however, ongoing research suggests that populations occurring on the three islands are distinct species. Adult males are olive green with a yellow head, throat, and breast and have a small black mask; females are grayish green above and whitish below. Little is known about the species' life history. Often joins mixed species foraging flocks, especially those with 'akikiki (*Oreomystis bairdi*). Apparently would creep along tree trunks, especially those of ohi'a (*Metrosideros polymorpha*) and koa (*Koa acacia*) trees, searching the bark and dead wood for arthropod prey; also may have taken nectar. Accounts vary regarding bill use. Either hammered surfaces, similar to its congener the 'akiapola'au (*H. munroi*), or used its upper mandible to fish out prey from crevices, catching them with its tongue and lower mandible. No information on the species' breeding biology, but likely is similar to the 'akiapola'au.

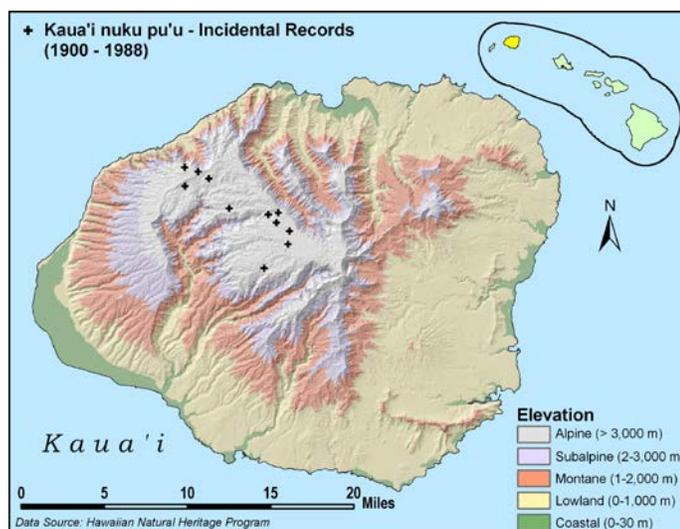
DISTRIBUTION: Unknown.

Probably extinct. All recent Kaua'i nuku pu'u sightings are from a small area of southwestern Kaua'i between 610 and 1,220 meters (2,000–4,000 feet) elevation. The species' historic range also appeared very restricted.

ABUNDANCE: Unknown. Probably extinct. There are fewer than a dozen historical records of the Kaua'i nuku pu'u. Extensive surveys in 1989, 1994, 1996, 2000, and 2005 did not detect the species.

LOCATION AND CONDITION OF

KEY HABITAT: Mesic and wet montane forests. Habitat conditions of the species' historic



range vary and all presumably support *Culex* mosquitoes. Areas where Kaua'i nuku pu'u were most recently been observed are managed by the State of Hawai'i.

THREATS: Unknown. However, the Kaua'i nuku pu'u likely was susceptible to the same factors that threaten other native Hawaiian forest birds including habitat loss and degradation, predation by introduced mammals, and disease. For Kaua'i nuku pu'u, the following likely was of particular concern:

- Disease. The precipitous decline of all nuku pu'u taxa suggests that mosquito-borne diseases played an important role in the species' demise.

CONSERVATION ACTIONS: If the species persists, it likely benefits from management activities 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 U.S. Fish and Wildlife Service (USFWS) *Revised Recovery Plan for Hawaiian Forest Birds* would be implemented, and management in anticipation of that possibility should include continued protection and management of wildlife sanctuaries and refuges.

MONITORING: Continue forest bird surveys and habitat monitoring.

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 nuku pu'u.

References:

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