



Photo: DOFAW

Forest Birds

Po'ouli

Melamprosops phaeosoma

SPECIES STATUS:

Federally listed as Endangered

State listed as Endangered

State recognized as Endemic

NatureServe Heritage Rank G1 – Critically imperiled

IUCN Red List Ranking – Critically endangered

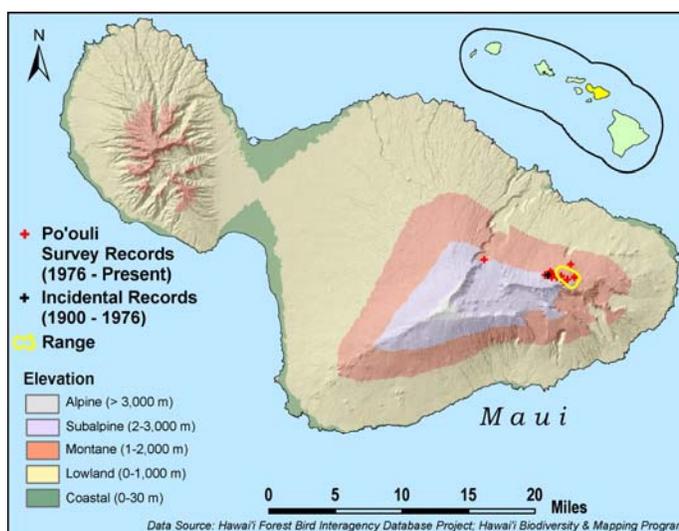
Draft Revised Recovery Plan for Hawaiian Forest Birds

– USFWS 2003

SPECIES INFORMATION: The po'ouli is a stocky Hawaiian honeycreeper (Family: Fringillidae) endemic to Maui that was not discovered until 1973. Po'ouli have short wings and tail, a finch-like bill, and distinctive plumage. Aptly named “black-faced” in Hawaiian, po'ouli have a large black face mask, white cheeks, throat and underparts and brown wings and back; no other Hawaiian forest bird is similarly colored. Although not well-studied, males and females are similar, although females have a grayish throat and breast. Little is known of the species' life history. Po'ouli often join mixed species foraging flocks. Forages primarily in the subcanopy and understory on tree branches of native shrubs and trees where they search moss, lichens, and bark for snails and arthropods. Breeding biology is based on observations from a single nesting pair and may be biased because of extremely low population density. For example, territorial behavior has not been observed. Nests are similar to those of other Hawaiian honeycreepers and are placed in 'ōhi'a (*Metrosideros polymorpha*) trees. Only the female incubates eggs and broods nestlings; male feeds the female on and off the nest.

DISTRIBUTION: Po'ouli likely are restricted to a 1,300 hectare (3,200 acre) area between 1,440 and 2,100 meters (4,750 – 7,000 feet) elevation on the northeastern slope of Haleakalā on Maui. No historical data on range, although fossil evidence indicates that po'ouli once occurred over a wider geographic range.

ABUNDANCE: As of 2003 three known individuals. One captured and brought into captivity and later died. The remaining two birds have not been seen since January 2004. The species' poor detectability has hampered attempts to



locate additional individuals or estimate population size. The Hawaiian Forest Bird Survey (1980), estimated the population at 140 ± 280 (95% CI) individuals.

LOCATION AND CONDITION OF KEY HABITAT: Po'ouli occur in mixed shrub montane wet forest dominated by 'ōhi'a, with an understory dominated by a diversity of small trees and shrubs, many of which are used as foraging substrates (e.g., kanawao [*Broussaissea arguta*], kawa'u [*Ilex anomala*]). Habitat conditions in areas occupied by po'ouli are variable, but improving. All known individuals occur in the Hanawī Natural Area Reserve which is managed by the State of Hawai'i.

THREATS: Unknown. However, the po'ouli is likely 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 po'ouli populations, the following are likely of particular concern:

- Habitat degradation. The species appears to prefer areas with low levels of soil and vegetation disturbance and therefore may be particularly sensitive to understory and ground cover damage by feral pigs (*Sus scrofa*).
- Predation. Rats (*Rattus* spp.) are abundant in po'ouli habitat and may depredate adults and nests.
- Competition. In addition to direct predation on adults and nests, rats also may compete with po'ouli for food resources, especially snails. In addition, the non-native garlic snail (*Oxychilus alliarius*) also is abundant and preys on native snails.

CONSERVATION ACTIONS: Since its discovery, major efforts have been directed at conserving the po'ouli. These include the establishment of the 3,000 hectares (7,500 acres) Hanawī Natural Area Reserve in 1986, which protects the species' entire known range. Fencing and pig removal has facilitated the recovery of the understory. In 1995, the Maui Forest Bird Recovery Project was created to research and protect native Hawaiian forest birds, including the po'ouli. Activities to date include: small mammal control, research on optimizing rodent control methods, surveys for native land snails, and banding and collecting blood samples to monitor demography and disease prevalence. In 2002, members of this team successfully translocated a female po'ouli to the home range of the male, however, she quickly returned to her own home range. In September of 2004, one po'ouli was successfully captured in an attempt to establish a captive population. Unfortunately, this individual died in captivity in November of the same year. The Hawai'i Department of Land and Natural Resources and the U. S. Geological Survey continue to search Hanawī and adjacent habitats for additional individuals. In addition, po'ouli populations likely have benefited from management efforts designed to conserve other endangered forest birds on northeastern Haleakalā including fencing, ungulate and small mammal control, forest restoration, habitat monitoring and studies on disease and disease vectors. In addition to these efforts, future management specific to the po'ouli may include the following:

- Continue pig and small mammal control efforts.
- Continue efforts to locate additional individuals.
- Continue efforts to locate and capture the two known individuals.
- Public outreach highlighting the importance of pig and rodent control to the remaining forest bird populations on Maui.
- 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 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. In addition to the ongoing research on po'ouli outlined above, additional priorities specific to the species include the following:

- Studies to determine the distribution and abundance of the species' prey base to determine if food resource is a limiting factor.

References:

Pratt TK, Kepler CB, Casey TLC. 1997. Po'ouli (*Melanerpes formicivorus*). In *The Birds of North America*, No. 272 (Poole A, Gill F, editors). Philadelphia, (PA): The Academy of Natural Sciences; and Washington DC: The American Ornithologists' Union.

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