

Photo

Forest Birds

Po'ouli

Melamprosops phaesoma

SPECIES STATUS:

Federally Listed as Endangered

State Listed as Endangered

State recognized as endemic

Hawaii Natural Heritage Ranking G1—Critically imperiled

SPECIES INFORMATION: Po'ouli are very rare, stocky Hawaiian honeycreepers that were not discovered until 1973. Branches of understory and subcanopy plant species are preferred foraging substrates; snails and larvae are preferred foods. All knowledge of the species' breeding biology is based on observations of a single nesting pair. Territorial behavior has not been observed. Female incubates and broods a clutch of two (one). Male feeds the female on and off the nest. Nests are typical of honeycreepers: open cups of pukiawe twigs and mosses and rootlets. Po'ouli are commonly seen in mixed-species foraging flocks.

DISTRIBUTION: Two known extant po'ouli occur in mixed shrub montane wet forest between 1440 and 2100 meters (4750 – 7000') on the northeastern slope of Haleakala on Maui. This describes their total known historic range as well. Fossil evidence indicates that po'ouli once inhabited drier forests at lower elevations on the leeward slope of Haleakala.

Map distribution

ABUNDANCE: Two individuals are known to exist. Densities have been difficult to estimate because the species is vocally inconspicuous, but estimates have declined steadily since 1976.

LOCATION AND CONDITION OF KEY HABITAT: The two known extant po'ouli live in montane wet forests in Hanawi Natural Area Reserve, which was created to protect the entire (known at that time) historic range of this species. Because po'ouli forage on the bark of understory species, especially kanawao (*Broussaisia arguta*), kawa`u (*Ilex anomala*), and the dominant 'ohi'a (*Metrosideros polymorpha*), they are thought to be intolerant of the habitat degradation wrought by feral pigs. Management of Hanawi NAR and surrounding areas with po'ouli populations has focused on controlling feral pigs and stabilizing soil and vegetation. Thus, the habitat condition can be considered stable and improving.

THREATS: Po'ouli are presumably subject to the same threats as other native Hawaiian forest birds, but their extremely low numbers make them particularly vulnerable to the loss of even a single individual. Of particular immediate concern are the following:

- Predation of adult birds (and nests, should a breeding pair form) by small mammals could be devastating. Small mammals may also compete with po'ouli for snails, their preferred food source.
- Habitat degradation, particularly damage to understory vegetation by feral pigs, is thought to be an important cause of po'ouli decline.
- Avian disease may also have played a role in restricting po'ouli to their current ranges as the species occurred at low elevations in dry forest in pre-historic times.

CONSERVATION ACTIONS: Po'ouli may have benefited from past management actions undertaken in their range including forest bird population surveys, fencing and ungulate removal. Additional specific actions to benefit po'ouli include the following:

- Hanawi Natural Area Reserve was established to protect what was thought to be the entire known range of the species. Fencing and ungulate control in Hanawi and on adjacent parcels has stabilized soil and allowed vegetation recovery to begin.
- The East Maui Watershed Partnership was formed to protect 40,000 hectares of rainforest on the northeast slope of Haleakala. The last population of po'ouli are within the boundaries of this multi-landowner consortium.
- Small mammal control to reduce the threat of predation and to reduce competition for invertebrate prey is ongoing in po'ouli habitat.
- Research on optimal rodent control, native land snails, and demography and disease studies is ongoing in po'ouli habitat.
- An attempt was made to translocate a female into the home range of the male bird in 2002. Although the female was successfully captured and moved, she returned to her own home range, apparently without making contact with the male.
- One of the three po'ouli was successfully captured in an attempt to establish a captive population. This individual died in captivity in late 2004. Additional efforts will be made to capture the last two remaining individuals.
- Begin public outreach about the importance and benefits of rodent control and other factors influencing the remaining forest bird populations on Maui.

MONITORING:

- Continue population and habitat quality surveys to assess efficacy of habitat management efforts.

RESEARCH PRIORITIES:

- Distribution and abundance of the po'ouli prey base to understand whether food limits the population.
- Feasibility of large-scale habitat management through aerial application of rodenticide.

References:

U.S. Fish and Wildlife Service. 2003. Draft Revised Recovery Plan for Hawaiian Forest Birds. Region 1, Portland, OR. 428pp.

Pratt, T.K., C.B. Kepler, and T.L.C. Casey. 1997. Po'ouli (*Melanerpes formicivorus*). In the Birds of North America, No. 272 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and the American Ornithologists' Union, Washington, D.C.