



Photo: Jack Jeffrey

Forest Birds

Maui 'alauahio or Maui creeper

Paroreomyza montana

SPECIES STATUS:

State Recognized as Endemic
NatureServe Heritage Rank G4 – Apparently Secure
IUCN Red List Ranking – Endangered

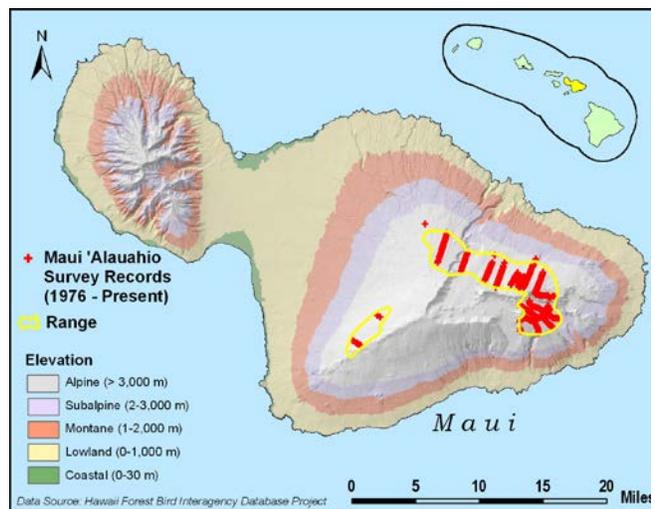
SPECIES INFORMATION: The Maui 'alauahio, or Maui creeper, is a small insectivorous Hawaiian honeycreeper (Family: Fringillidae) endemic to Maui. The species also occurred on Lāna'i but was last seen in 1937 and is presumed extinct. Adult males are predominantly olive-green above and have a bright yellow face, throat, and belly; the amount and intensity of yellow varies among individuals. Adult females are similar, but generally not as bright; both have short, fine straight bills. Adult plumage is not attained for several years. The Maui 'alauahio gleans invertebrates from woody and leafy parts of a variety of plants. Adults defend 1 to 2 hectare (2.5 - 5 acre) home ranges against conspecifics year round and will chase 'apapane (*Himantione sanguinea*) and Japanese white-eyes (*Zosterops japonicus*) from the vicinity of their nests. They are socially monogamous and pair for life, although extra-pair copulations have been confirmed through genetic analysis. Females choose the nest site and build open-cup nests. Clutch size is two, and birds will renest after a failure, although double brooding has not been documented. Only females incubate eggs and brood nestlings. They do not breed until their third year, and young birds (i.e., helpers) associate with breeding pairs. Helpers are usually offspring from the previous year and feed the female, nestlings, and fledglings. Fledglings are fed for two to three months, and young remain with their parents in family groups for 18 - 20 months.

DISTRIBUTION: Above 900 meters (3,000 feet) on the slopes of Haleakalā. Historically common in west Maui and on Lāna'i; these populations are now extirpated. Fossil evidence suggests they were common across the south side of the island and in lowland forests.

ABUNDANCE: The Hawaiian Forest Bird Survey (1980) estimated the population at 35,000 ± 5,000 (95% confidence interval) birds. Surveys conducted in 1995-1997 found similar numbers, but densities decreased below 1,600 meters (5,250 feet) and the range appears to have contracted.

LOCATION AND CONDITION OF

KEY HABITAT: Primarily wet and mesic montane forests dominated by 'ōhi'a (*Metrosideros polymorpha*), although they also occur in subalpine māmane scrub (*Sophora chrysophylla*), and in dry and mesic forests dominated by pine (*Pinus* spp.) and eucalyptus (*Eucalyptus* spp.; e.g., Polipoli State Park and Hosmer Grove); all populations occur above 900 meters (2,925 feet) elevation. Habitat conditions vary greatly across the species' range. The northeastern part of the species' range is actively managed by the State of Hawai'i, (i.e., Forest Reserve and Natural Area Reserve), the National Park Service, and private landowners including the Nature Conservancy. All entities are current members of the East Maui Watershed Partnership. The remainder of the species' range occurs on State and Federally owned lands, where management efforts vary considerably.



THREATS:

- **Predation.** Rats (*Rattus* spp.) have been observed depredating nests and females. Female behavior of begging near nests may make them particularly susceptible to rats.
- **Disease.** Susceptibility to avian malaria has been documented, and likely prevents the establishment of populations in lowland areas. In Kahikinui, few individuals show signs of avian pox, although it is prevalent in 'amakihi (*Hemignathus virens*) and 'apapane (*Himatione sanguinea*). These data are equivocal, indicating low transmission rates, possible resistance, or very high mortality for this species.
- **Habitat degradation.** Current fencing around protected areas is not effective in excluding axis deer (*Axis axis*). Currently, deer populations on Maui are growing and threaten to further degrade forests occupied by the 'alauahio.

CONSERVATION ACTIONS: Maui 'alauahio likely have benefited from actions to conserve 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, ongoing fencing and ungulate control on Department of Hawaiian Home Lands at Kahikinui will likely benefit the small population there. In general, actions should include continued protection and management of wildlife sanctuaries and refuges.

MONITORING: Continue forest bird surveys and habitat monitoring.

RESEARCH PRIORITIES: Research priorities for Hawaiian forest birds include improving methods for controlling rats and feral cats (*Felis silvestris*) in native forests, determining ecological requirements of *Culex* mosquitoes at mid- and high-elevation forests, and developing methods to control mosquitoes. Research priorities specific to Maui 'alauahio include development of a translocation protocol to facilitate reintroduction into restored high-elevation forests.

References:

Baker H, Baker PE. 2000. Maui 'alauahio (*Paroreomyza montana*). In *The Birds of North America*, No. 504 (Poole A, Gill F, editors.). Philadelphia, (PA): The Academy of Natural Sciences; and Washington DC: The American Ornithologists' Union.

IUCN Red List of Threatened Species. 2015. Version 2014.3. Available at: www.iucnredlist.org. (Accessed May 2015).

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.