
Photo: Jack Jeffrey

Forest Birds

Hawai‘i creeper

Oreomystis (Loxops) mana

SPECIES STATUS:
Federally Listed as Endangered
State Listed as Endangered
State Recognized as Endemic
NatureServe Heritage Ranking G2—Imperiled
IUCN Red List Ranking—Endangered
Revised Recovery Plan for Hawaiian Forest Birds—USFWS 2006

SPECIES INFORMATION: The Hawai‘i creeper is a small, inconspicuous Hawaiian honeycreeper (Family: Fringillidae) endemic to the island of Hawai‘i. Adults are predominately olive-green above, dull buff below, and have a dark gray mask extending around the eyes; males are brighter. Their similarity to Hawai‘i ‘amakihi (*Hemignathes virens*), Hawai‘i ‘ākepa (*Loxops coccineus coccineus*), and introduced Japanese white-eyes (*Zosterops japonicus*) complicates field identification. Unlike many Hawaiian forest birds, their life history is well known. Outside the breeding season, they frequently join mixed-species foraging flocks and forages over home ranges that average 11 hectares (17.3 acres). They glean insects, spiders, and other invertebrates from the branches, trunks, and foliage of live ‘ōhi‘a (*Metrosideros polymorpha*) and koa (*Acacia koa*) trees. During the breeding season, the species’ home range averages 4 to 7 hectares (10 – 17 acres) and a 10 – 20 meter (33 – 66 feet) territory around the nest is defended. Most nests are open cup structures, but about 15 percent are placed in cavities or in bark crevices. Females build nests, incubate eggs, and brood nestlings. Males deliver food to the female on and off the nest. Both parents feed the young for approximately one month. Hawai‘i creepers re-nest after nest failures and pairs may raise two broods in a season. Nest success is very low, but adults have high annual survival.

DISTRIBUTION: Occurs in four disjunct populations above 1,500 meters (5,000 feet) on the island of Hawai‘i. Historically occurred across the island above 1,070 meters (3,500 feet) elevation.

ABUNDANCE: The Hawaiian Forest Bird Survey (1976-79, 1983), estimated the population at 12,500 ± 2,000 (95% confidence interval) birds. The largest population consisted of 10,000 ± 1,200 birds.

LOCATION AND CONDITION OF KEY HABITAT: Most commonly in mesic and wet forests dominated by ‘ōhi‘a and koa, with a subcanopy of ‘ōlapa (*Cheirodendron trigynum*), pūkiawe (*Styphelia tameiameiae*), ‘ōhelo (*Vaccinium* spp.), ‘akala (*Rubus hawaiiensis*), kōlea (*Myrsine* spp.), kāwa‘u (*Ilex anomala*), and hapu‘u tree ferns (*Cibotium* spp.). Habitat conditions vary across the species’ range, with much of it degraded by grazing ungulates, especially feral pigs. Most of the current range of the Hawai‘i creeper is within the boundaries of State and Federally owned lands.

THREATS:

- Predation. Nest success is very low (11 to 50 percent) and rat (*Rattus* spp.) predation may be partially responsible. Hawai'i creepers place their nests near the main trunks of trees which may facilitate predation by rats.
- Disease. The Hawai'i creeper's absence below 1,350 meters (4,500 feet) elevation suggests that it may be particularly susceptible to mosquito-borne avian disease.
- Habitat loss and degradation. Logging and grazing ungulates have reduced, degraded, and fragmented suitable forest habitats. Habitat fragmentation may be a dispersal barrier preventing or restricting recolonization of the species' former range.
- Competition. Competition with Japanese white-eyes(*Zosterops japonicus*) may negatively affect Hawai'i creepers.

CONSERVATION ACTIONS: Past or ongoing actions specific to the Hawai'i creeper include studies on productivity, recruitment, and survival, and development of captive propagation techniques. They likely have benefited from actions to conserve other endangered forest birds in the Hakalau Forest National Wildlife Refuge, the Kona unit of the Hakalau Forest National Wildlife Refuge, 'Ōla'a/Kīlauea Watershed Partnership, Kapāpala Forest Reserve, and Pu'u Wa'awa'a Wildlife Sanctuary. These efforts include fencing, ungulate and small mammal control, forest restoration, habitat monitoring, and studies of disease and disease vectors. Future management specific to Hawai'i creepers may include the following:

- Reintroduce the Hawai'i creeper to managed areas in their former range (e.g., Mauna Loa strip in Hawai'i Volcanoes National Park).
- Control rodents to enhance nestling and female survival. Aerial broadcast of rodenticides would be the most effective method to treat broad areas.
- Increase public education to engender support for conservation of forest birds.
- Continue 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 improving methods for controlling rats and feral cats in native forests, determining the ecological requirements of *Culex* mosquitoes at mid- and high-elevation forests, and developing methods to control mosquito populations. Research priorities specific to the Hawai'i creeper include determining the efficacy and health implications of broadcast rodenticide.

References:

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

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