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Forest Birds

'Ōma'ō

Myadestes obscurus

SPECIES STATUS:

State recognized as Endemic
 NatureServe Heritage Ranking G3 –
 Rare with restricted range
 IUCN Red List Ranking – Vulnerable

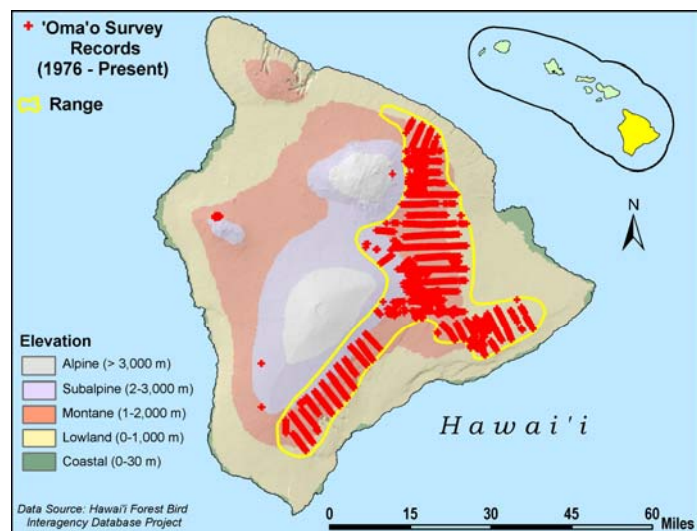
SPECIES INFORMATION: One of five species of Hawaiian solitaires (family: Turdidae), the 'ōma'ō is endemic to the island of Hawai'i. Although, 'ōma'ō often perch silently for long periods, and are more often detected by their song, males perform a flight-song display known as "skylarking." Like all adult Hawaiian solitaires, 'ōma'ō have drab olive-brown and gray plumage. The life history of this species is well-studied. Their diet consists primarily of fruits of native and introduced understory plant species, although they also take koa (*Acacia koa*) flowers from the canopy and prey on a variety of invertebrates, including earthworms, snails, spiders, and insects. Both sexes defend small nesting territories. Nests are built by females in a variety of locations (e.g., cavities, trunk forks); females also perform most incubation and brooding. Clutch size is one or two eggs, and double brooding occurs. Fledglings remain in their natal territories for four to six months after fledging. A male-biased sex-ratio exists, but its significance to populations is unknown.

DISTRIBUTION: 'Ōma'ō primarily occur in two populations on the eastern and southern slopes of the island of Hawai'i at elevations greater than 1,000 meters (3,300 feet). A third, smaller population occurs in alpine scrub habitat between 2,000 and 3,000 meters (6,500 – 9,750 feet) elevation. Currently, 'ōma'ō occupy an estimated 30 percent of their former range, which historically included habitats from 300 – 3,000 meters (1,000 – 9,750 feet) elevation.

ABUNDANCE: The Hawaiian Forest Bird Surveys (1976-79, 1983) estimated the population at 170,000 individuals.

Based on more recent surveys, the populations appear stable, and may be increasing in habitats below 1,200 meters (3,450 feet).

LOCATION AND CONDITION OF KEY HABITAT: 'Ōma'ō occur in mesic and wet montane 'ōhi'a (*Metrosideros polymorpha*) or mixed 'ōhi'a and koa forests in the Hāmākua, Ka'u, and



Kīlauea districts. These forests support a variety of important food plants, including 'ōlapa (*Cheirodendron trigynum*), kōlea (*Myrsine lessertiana*), kāwa'u (*Ilex anomala*), naio (*Myoporum sandwicense*), pilo (*Coprosma* spp.), pūkiawe (*Styphelia tameiameia*), 'ōhelo (*Vaccinium* spp.), and 'ākala (*Rubus hawaiiensis*). In the small alpine scrub population on Mauna Loa, pūkiawe, 'ōhelo, kūkaenēnē (*Coprosma ernodeoides*), and 'a'ali'i (*Dodonea viscosa*) are important food plants. Although most of the species' current range occurs on State and Federal lands, the condition of 'ōma'o habitat varies considerably.

THREATS: 'Ōma'o are 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 'ōma'o populations, the following are of particular concern:

- **Disease.** The prevalence of disease in areas tested is low and five 'ōma'o exposed to malaria recovered quickly, suggesting a greater resistance to disease compared to other native forest birds. However, the disappearance of populations from lower elevations has been the pattern of decline noted in other Hawaiian birds susceptible to mosquito-borne diseases.
- **Predation.** 'Ōma'o nests are very accessible and therefore vulnerable to predation by rats (*Rattus* spp.). Predation by native raptors also is likely.
- **Habitat degradation.** 'Ōma'o occur at lower densities in degraded habitat. Pigs (*Sus scrofa*) and other ungulates likely destroy important food plants.

CONSERVATION ACTIONS: 'Ōma'o likely have benefited from management efforts designed to conserve other endangered forest birds and native habitat at Hakalau Forest National Wildlife Refuge, Hawai'i Volcanoes National Park, and the 'Ōla'a/Kīlauea Watershed Partnership. These efforts include fencing, ungulate and small mammal control, forest restoration, habitat monitoring, and studies of disease and disease vectors. In addition to these efforts, future actions specific to the protection of 'ōma'o populations may include the following:

- Protection and restoration of native forests above 1,500 meters (4,500 feet), including elimination of feral ungulates and non-native plants.
- Control or eradication of rats and feral cats (*Felis silvestris*) in areas occupied by 'ōma'o.
- Public education and outreach.
- 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 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 'ōma'o include the following:

- Identification of disease resistant individuals.
- Development of improved techniques to control alien weed species.

References:

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.

Wakelee KM, Fancy SG. 1999. 'Oma'o (*Myadestes obscurus*), kama'o (*Myadestes myadestinus*), oloma'o (*Myadestes lanaiensis*), and 'amaui (*Myadestes woahensis*). In *The Birds of North America*, No. 460 (Poole A, Gill F, editors.). Philadelphia, (PA): The Academy of Natural Sciences; and Washington DC: The American Ornithologists' Union.