

Forest Birds



Rothschild Collection

Kāma'ō or large Kaua'i thrush

Myadestes myadestinus

SPECIES STATUS:

Federally Listed as Endangered

State Listed as Endangered

State Recognized as Endemic

NatureServe Heritage Rank GH – Possibly Extinct

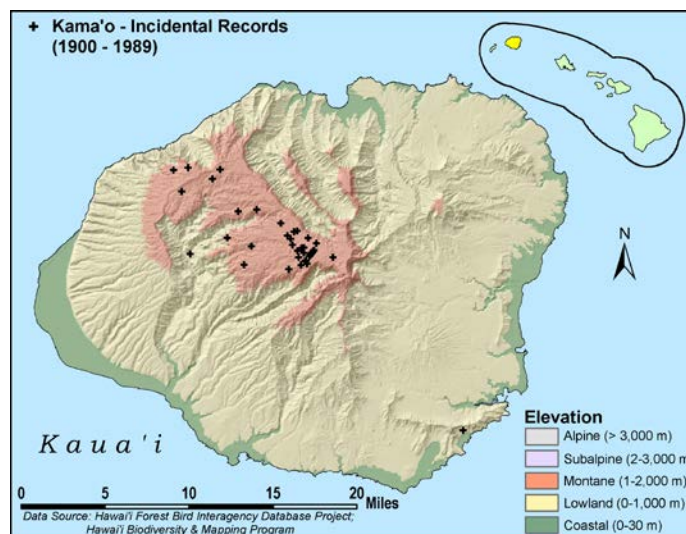
IUCN Red List Ranking – Extinct

Revised Recovery Plan for the Hawaiian Forest Birds – USFWS 2006

SPECIES INFORMATION: The kāma'ō, or large Kaua'i thrush, is one of two Hawaiian solitaires (family: Turdidae) endemic to Kaua'i. The species was noted for flying upward, singing a few loud notes, and then suddenly dropping into the understory. Like all adult Hawaiian solitaires, the kāma'ō has olive-brown and gray plumage, but it lacks the white-eye ring and pinkish legs of the smaller puaiohi or small Kaua'i thrush (*M. palmeri*). The species' complex song is composed of a melodic series of liquid warbles, trills, and whistles, and is often heard before dawn and after dusk. The diet is reported to consist of fruits and berries, particularly the bracts of 'ie'ie (*Freyinetia arborea*). Life history characteristics are mostly unknown, but are presumed similar to the 'ōma'ō (*M. obscurus*). Breeding is thought to occur in spring, although no nest has been described.

DISTRIBUTION: Has not been observed below 1,100 meters (3,500 feet) since the mid-1960s. If the species persists, it is concentrated in the uppermost regions of the Alaka'i Wilderness Preserve. Historically was found in moist forests near sea level on northern Kaua'i as well as upland, interior mountain forests.

ABUNDANCE: Probably extinct. The Hawaiian Forest Bird Survey (1981), estimated the population at 24 ± 30 (SE) individuals. The last kāma'ō was observed in 1989, and was not observed during the 2000 Kaua'i Forest Bird Survey. Historically, the kāma'ō was extremely common.



LOCATION AND CONDITION OF KEY HABITAT: Most recent sightings were in open canopy forests of 'ōhi'a (*Metrosideros polymorpha*) and 'ōlapa (*Cheirodendron* spp.). Based on the

diet and life history of the 'ōma'ō, a diverse understory including epiphytes, tree ferns, and fruiting plants such as 'ie'ie, 'ōhā wai (*Clermontia* spp.), and 'ōhelo (*Vaccinium* spp.) would likely be high-quality habitat. Because 'ie'ie, an important food plant, does not do well in high-elevation forests, if the species persists it may be restricted to marginal habitat. The area where the species was last observed is managed by the State of Hawai'i as a Wilderness Preserve.

THREATS: Kāma'ō 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 kāma'ō, the following are of particular concern:

- Disease. Mosquito-borne disease is probably the most important factor in the decline of the kāma'ō. Pox lesions were noted on this species in mid-19th century.
- Habitat degradation. The presence of native forest with abundant fruit-bearing plants below the species current range demonstrates that habitat degradation cannot entirely explain the species extirpation from lowland areas. However, several invasive plants and feral pigs (*Sus scrofa*) have degraded the understory of many native forests.
- Competition. Non-native birds, especially ecologically similar species (e.g., white-rumped shama [*Copsychus malabaricus*]), may have contributed to the species' decline.
- Predation. If kāma'ō, like many solitaires, are cavity or low platform nesters, their nests would be very susceptible to rats (*Rattus* spp.).
- Non-native arthropods. Recently introduced non-native insects, especially yellow jackets (*Vespa pensylvanica*) and Argentine ants (*Linepithema humile*), may compete with the kāma'ō's native arthropod prey or disrupt the pollination of the species' food plants. Introduced herbivorous insects also could reduce the abundance of food plants.

CONSERVATION ACTIONS: If the species persists, it likely benefits from efforts to conserve other endangered forest birds on Kaua'i, including the establishment of the Alaka'i Wilderness Preserve, regular surveys of forest bird populations, habitat monitoring, studies of disease and disease vectors, and public education efforts featuring Kauai's endangered forest birds. In addition to these efforts, future management specific to the recovery of the kāma'ō may include:

- Aggressively control ungulates to improve the quality of kāma'ō habitat and facilitate the recovery of degraded, but potential, habitat. Control of non-native plants should be part of forest restoration efforts.
- Conduct eradication of rats and feral cats from the Alaka'i Wilderness Preserve.
- Prevent introduction of the small Indian mongoose (*Herpestes auropunctatus*) and other possible predators.
- Conduct public outreach and education.
- 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. Given that this species is likely extinct, there are no research priorities specific to kāma'ō.

References:

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Hawai'i's State Wildlife Action Plan
October 1, 2015

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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.