

Photo

## Forest Birds

### 'Oma'o

#### *Myadestes obscurus*

##### **SPECIES STATUS:**

State recognized as endemic

Hawaii Natural Heritage Ranking G3—Rare with restricted range

**SPECIES INFORMATION:** One of five species of solitaire found in the Hawaiian islands, 'oma'o are endemic to Hawai'i island. 'oma'o perch silently for long periods, and so are more often detected by their song than visually. The diet consists primarily of fruits of both native and introduced understory plant species, though they are also known to take koa (*Acacia koa*) flowers from the canopy. 'oma'o forage opportunistically for invertebrates. Both sexes defend small nesting territories and may also defend all-purpose territories. 'oma'o are apparently socially monogamous. Courtship-feeding and ritualized begging may precede breeding. Bulky cup nests are constructed by females in a variety of locations. Females incubate a clutch of one or two. Females brood in the first days after hatching and in inclement weather; males have been seen brooding as well. Fledglings are inactive and dependent on parental feedings for about a week. They remain in natal territories for 4-6 months after fledging.

**DISTRIBUTION:** 'oma'o occur in mesic and wet 'ohi'a (*Metrosideros polymorpha*) and mixed 'ohi'a and koa forests above 1000 meters (3300') on eastern and southern slopes of Hawai'i island. Although presently absent from Kohala and most of Kona, their historic range included these areas as well as a range of habitats from 300 – 3000 meters (1000 – 9800'). They currently occupy 30% of their former range.

**ABUNDANCE:** The total 'oma'o population was estimated to include about 170,000 individuals by the Hawaiian Forest Bird Survey (1976-1979). The Ka'u population may be isolated by degraded rangeland in Kapapala. 'Oma'o populations appear to be stable, and may be increasing in areas below 1200 meters (3450') elevation.

**LOCATION AND CONDITION OF KEY HABITAT:** 'oma'o occur in mesic and wet montane forests above 1000 meters (3300') in Hamakua, Ka'u, and Kilauea districts of Hawai'i island. These forests are dominated 'ohi'a (*Metrosideros polymorpha*) or by mixed 'ohi'a and koa (*Acacia koa*) with a variety of fruiting trees and shrubs in the understory. 'Olapa (*Cheirodendron trigynum*), kolea (*Myrsine lessertiana*), kawa'u (*Ilex anomala*), naio (*Myoporum sandwicense*), pilo (*Coprosma* spp.), pukiaawe (*Styphelia tameiameia*?), 'ohelo (*Vaccinium* spp.), and 'akala (*Rubus hawaiiensis*) are important food plants. A small population also occurs in treeless alpine scrub above 2000 meters (6500') on Mauna Loa where pukiaawe, 'ohelo, kukaenene (*Coprosma ernodeoides*) and 'a'ali'i (*Dodonea viscosa*) dominate. The condition of 'oma'o habitat varies

considerably. Some areas are protected and actively managed for forest bird conservation; others have no active management at all. The former include ungulate-free forests with relatively intact understory, while the latter include forests suffering from extensive habitat degradation as the result of feral pigs and invasive alien weeds. 'oma'o occur at much lower densities in degraded habitat. Much of the species' current range is under state or federal jurisdiction. Thus, management is stable even though habitat quality varies.

**THREATS:** 'oma'o are susceptible to the same threats as other native Hawaiian forest birds. These include loss and degradation of habitat, predation by introduced mammals, and avian disease. For 'oma'o populations, specific threats include:

- Disease prevalence is low in areas where measured. Five 'oma'o challenged with malaria recovered quickly, which suggests a greater resistance to disease than in other native avifauna. However, disappearance of populations from low elevations in Kona and Kohala is consistent with a disease model of extinction.
- Predation by avian and mammalian predators is likely.

**CONSERVATION ACTIONS:** No actions specifically target 'oma'o, but actions taken to conserve endangered forest bird species at Hakalau Forest National Wildlife Refuge, Hawai'i Volcanoes National Park, and the 'Ola'a /Kilauea Partnership almost certainly benefit 'oma'o as well. These efforts include fencing and ungulate control, small mammal control, forest restoration, monitoring and disease research. Specific actions directed towards 'oma'o in the future may include:

- Protection and restoration of native forests above 1500 meters (4500'). This must include elimination of both feral ungulates and introduced plant species in native habitats.
- Predator control has been attempted with some success in Hawaiian forests. If sustained throughout breeding season, it may allow increased reproductive success for native forest birds.
- Public education and outreach\*\*.

**MONITORING:**

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

**RESEARCH PRIORITIES:**

- Identification of disease resistant individuals.
- Improved methods for rat and feral cat control in native forests.
- Development of improved techniques to control alien weed species.
- Development of techniques to control disease vectors.

**References:**

Wakelee, K. M., and S. G. Fancy. 1999. 'Oma'o (*Myadestes obscurus*), Kama'o (*Myadestes myadestinus*), Olona'o (*Myadestes lanaiensis*), and 'Amaui (*Myadestes woahensis*). *In* The Birds of North America, No. 460 (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.