

## Forest Birds

**‘Anianiau  
or Lesser ‘Amakihi***Hemignathus parvus***SPECIES STATUS:**

State recognized as endemic  
Hawaii Natural Heritage Ranking G3-Rare with restricted range

**SPECIES INFORMATION:** ‘Anianiau are the smallest Hawaiian honeycreeper and are also known as the “lesser ‘amakihi”. They move continuously, gleaning insects or taking nectar from flowers, outer canopy foliage or twigs in native forests on Kaua‘i island. ‘Anianiau are socially monogamous. Both sexes defend small nest territories, build the open-cup nest, and care for young. Female incubates a clutch of three (2-4); male feeds female off the nest. Nestlings are brooded when very young and during nights or inclement weather. Fledglings fly well when they depart from the nest. Early observers noted that fledglings give a “food call”, but information on post-fledge parental care is not available.

**DISTRIBUTION:** ‘Anianiau occur above 600 meters (2000’) in native forests of Koke‘e, Alaka‘i and Waimea on Kaua‘i island. They may range as low as 100 (330’) meters in the rugged northwest valleys. The species’ original range was probably island wide.

**ABUNDANCE:** The USFWS estimated the island-wide ‘anianiau population to consist of 24,000  $\pm$  3000 (s.e.) individuals in the early 1970’s. The Hawaiian Forest Bird Survey, which only included the Alaka‘i, estimated 6100  $\pm$  600 birds in the same region in 1981 where the USFWS had estimated 5500  $\pm$  900 birds in 1971. Although total population has declined in the past century due to range contraction, the population appears stable in its current range.

**LOCATION AND CONDITION OF KEY HABITAT:** ‘Anianiau occur in montane forests above 600 meters (2000’), though populations are denser above 1100 meters (3600’). Forest types occupied include lowland mesic and wet forests. The most common tree species in these forests are ‘ohi‘a (*Metrosideros polymorpha*), koa (*Acacia koa*), ‘olapa (*Cheirodendron trigynum*) and lapalapa (*C. platyphyllum*). ‘Anianiau take nectar from ‘ohi‘a, ‘ohelo (*Vaccinium* spp.), ‘alani (*Pelea* spp.), and are known to forage on flowers of other native and introduced plant species as well. At lower elevations, habitat is degraded by the presence of alien weed species. Feral ungulates hasten the spread of these invasive plants. Public hunting keeps ungulate numbers down in the most accessible parts of this habitat, but is not effective across the entire range. Habitat above Waimea Canyon, in the Alaka‘i Swamp, and to the west of the Alaka‘i is all

managed by the state of Hawai'i as Forest Reserve, Wilderness Preserve, or State Park. These areas are considered stable.

**THREATS:** Although the species is apparently secure (?), it is 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. Of particular relevance to 'anianiau are the following:

- Disease screening yielded low numbers of 'anianiau with malarial parasites in an area where prevalence was high in other species. This may indicate high mortality, low infection rates, or possible resistance.
- Habitat degradation appears to decrease population densities of 'anianiau. The species is tolerant to habitat alteration, but it is most common in undisturbed native forest. Development around Koke'e may be further degrading habitat.
- Introduced birds may compete with 'anianiau for food and nest resources. Introduced arthropods may also compete with 'anianiau for smaller arthropod prey.

**CONSERVATION ACTIONS:** No actions specifically target 'anianiau, but actions taken for endangered forest bird species on Kaua'i almost certainly benefit 'anianiau as well. These efforts include fencing and ungulate control, small mammal control, forest restoration, monitoring and disease research. Additional specific actions recommended include:

- Protection and restoration of high elevation native forests. This must include elimination of both feral ungulates and introduced plant species in native habitats.
- Prevent further introductions of noxious plants, animals or disease vectors.
- Mosquito control...?
- Control of introduced predators and parasitoids of native arthropods.
- Public education and outreach\*\*.

**MONITORING:**

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

**RESEARCH PRIORITIES:**

- Long-term monitoring and research to better understand demography, social structure and factors that limit populations.
- Identification of disease resistant individuals may aid future reintroduction and conservation efforts for this species.
- Status of populations which are remote from the Alaka'i.

**References:**

Lepson, J. K. 1997. 'Anianiau (*Hemignathus parvus*). In *The Birds of North America*, No. 312 (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.