

# Some extraordinary observations of endangered forest birds on the Island of Hawaii

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Three species of endangered forest birds inhabit the Keauhou Ranch and Kilauea Forest Reserve area on the island of Hawaii. The Hawaii Akepa (*Loxops c. coccinea*), the Hawaii Creeper (*L. maculata mana*), and the Akiapolaau (*Hemignathus wilsoni*) are all believed by researchers to have small populations, perhaps in the low hundreds (J. Michael Scott, pers. comm.). During a recent visit to this area we witnessed a phenomenon that we believe should be called to the attention of all concerned with the survival of these three endangered species.

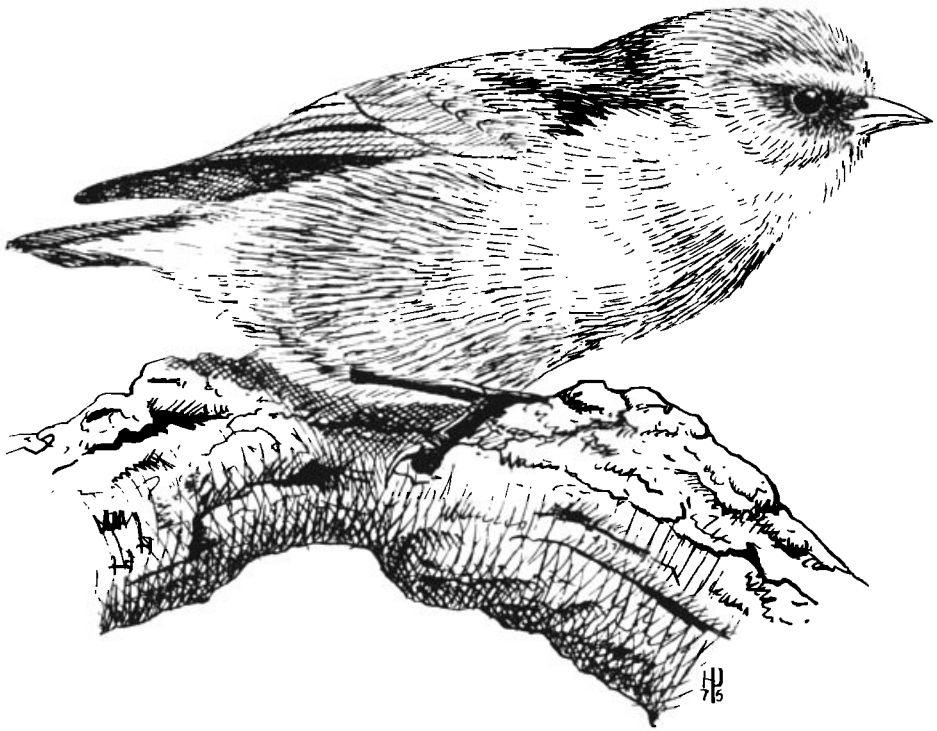
On August 19, 1975 at 9:30 a.m. we arrived at the fence line marking the boundary between Kilauea Forest Reserve and Keauhou Ranch, approximately 11 miles northwest of Volcano. We began looking for birds in a recently logged area on the Keauhou side of the fence. Within an hour we had found all three of the species mentioned above and had heard both the creeper and the Akiapolaau in full song. Rain began falling soon after we began—a light, warm, misty rain that did not prevent our continued observations. As we worked our way down the fence line, periodically entering the forest on either side, we became aware that we were witnessing something unusual. Birds were everywhere, feeding actively and singing. Every tree seemed alive with birds, most of which were foraging below the mid-level. But the most

striking feature of the activity was the species composition. The drepanidid species most often seen was the Hawaii Creeper. Often several individuals could be seen in the same tree. Second in abundance was the Akiapolaau, which could be found in almost every large koa tree (*Koa acacia*) and occasionally in ohia (*Metrosideros polymorpha*), not a customary site. Often as many as four individuals could be heard in full song simultaneously. Akepa were not so abundant, but we did see several individuals and one small flock of five birds.

We continued observations for five hours along about one mile of the fence line. The birds usually common here were in evidence, but not so much as the two endangered ones mentioned earlier. Amakihi (*L. virens*), outnumbered by both creepers and Akiapolaau, were foraging mostly in the naio trees (*Myoporum sandwicense*), which were in full bloom. By contrast, little bloom was evident on the ohia. Apapane (*Himatione sanguinea*) were present but not abundant, and we saw only a few Iiwi (*Vestiaria coccinea*). Omao (*Phaeornis obscurus*) were abundant and highly vocal throughout the area.

After the first hour's observation, we

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*Hawaii Creeper, Loxops maculata mana. Drawing/H. Douglas Pratt*

realized that we were seeing unusually high numbers of individuals of the endangered birds and tried to keep an estimate of totals. By the time we left the area at 2:30 p.m. we had seen between 50 and 75 Hawaii Creepers, about 50 Akiapolaau, and eight Akepa. At that time activity was still high and showed no sign of abating although the rainfall was increasing. Except for the one group of Akepa, none of the birds appeared to be associated in flocks.

We returned to the area on August 20 hoping to repeat our experience of the previous day. The skies had cleared and the day was bright and sunny. Berrett and Bruner walked the fence line downward and Pratt spent most of his time in the recently-logged area of Keauhou Ranch where the previous day's observations had begun. To our disappointment, the birds were much less active and less vocal than on the previous day. Had it not been for Pratt's familiarity with call notes, only a few Akiapolaau would have been found. The same may be said of Hawaii Creepers, although they were easily located

when their vocalizations were heard. Akepa were present in numbers comparable to those of the previous day. We worked the area for eight hours during which time we observed 22 Akiapolaau, 40 Hawaii Creepers, and 10 Akepa. Most of these birds were concentrated in the recently logged area of the ranch. Lower down the slope, where the day before both creepers and Akiapolaau had been abundant, not a single individual of either species could be found. Even so, the numbers on August 20 were unusually high. Perhaps noteworthy was the great reduction in the vocal activity of the Omao on the second day in the area. The birds were present in their usual abundance, but calling was reduced by at least 50 per cent from the previous day.

Some readers might question our ability to identify these birds, particularly the Hawaii Creeper, which can easily be confused with the Amakihi. However, Pratt and Bruner were familiar with the area and its avifauna from a previous visit in 1974, and Pratt had been working in the area daily for five days prior to these surprising observations and had



Puaiohi, or Small Kauai Thrush, *Phaeornis palmeri*, painted in Alakai Swamp, Kauai. Tree is a *Pelea*, sp. The vine is *Smilax sandwicensis*.



Po'o Uli, *Melamprosops phaeosoma*, Painted on the northeast slope of Haleakala, Maui. The plant is Kolea, *Myrsine* sp. Both plates from paintings by H. Douglas Pratt.



*Akiapolaau, Hemignathus wilsoni. Drawing/H. Douglas Pratt*

become thoroughly familiar with both the vocalizations and visual identifying marks of all species concerned. With but one exception (see below), he at no time during his earlier studies saw anything comparable to the activity and numbers of birds witnessed on August 19.

One possible explanation for the phenomenon is that we encountered a wave of postbreeding wanderers. Some creepers did seem to be moving through the forest in groups, one comprising about 20 birds. Pratt and Terry Parman had seen a similar grouping of 12 creepers in a single koa tree in the same area on August 14. However, on August 20 the few Akiapolaau and creepers heard in full song exhibited territorial behavior by responding vigorously to playback of their recorded songs.

Another explanation might lie in the fact that on August 19 bird activity was greatest on the relatively open Keauhou Ranch. In fact, the Kilauea forest seemed devoid of birds. On August 20 birds were more equitably distributed between the two areas. This fact may indicate a movement from the deep forest to the edge under particular weather conditions. An increase in activity, and therefore in detectability, of birds during the light rain was obvious during several brief showers on August 20. Since many observers, assuming that birds are less detectable then, cease field work when rain begins, phenomena such as we witnessed may often be missed, even by competent ornithologists with many hours spent in the field.

Whatever the explanation, our sightings should be encouraging to those concerned with the welfare of these species. The populations of Akiapolaau and Hawaii Creeper may be higher than supposed, since under current reckoning we would have seen a large percentage of the total population of each along a one-mile transect in a few hours' time, an unlikely event at best. Such numbers as we observed also indicate the great significance of this particular area in the maintenance of viable populations of many native forest birds. If an influx of birds from other areas after the breeding season does occur, then this area could be critical for the survival of several endangered species.