Unfortunately, if a shortgrass area is plowed and allowed to revert to grassland, it may well be revegetated with taller grasses (Bergman 1975). In fact, many areas in Weld County that were plowed in the 1930's and later allowed to go back to grass still are not good Mountain Plover areas because of the presence of taller grasses. We suspect that such a past history of plowing may be the reason why many shortgrass prairie areas now lack Mountain Plovers.

If this species is to be preserved, then large areas must remain subject to heavy grazing and be kept free of plowing or pitting. Whether this is done may well depend upon the relationship between wheat prices and cattle prices. For instance, when wheat prices were high in 1974 Webster found that several large shortgrass tracts in Baca County, Colorado were being plowed and Graul found the same in Weld County. Of course, these comments apply only to the breeding areas and research is badly needed to determine the problems these plovers may be encountering on their wintering areas.

Graul's 1969–74 field work was supported by a National Institute of Health Training Grant (No. 2 TO1 GM01779), a Chapman Fund Grant, a Sigma Xi Grant-in-Aid, and a Faculty Research Grant administered by the University of North Carolina at Charlotte. His 1975 work was funded by the Colorado Division of Wildlife. Webster is grateful for the cooperation of the members of the Colorado Field Ornithologists who submitted Mountain Plover observations and/or participated in field surveys. She also thanks Nancy Hurley and Hugh Kingery for making special checks of historic Mountain Plover breeding areas.

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SUPERIMPOSITION OF AN AMAKIHI NEST ON ONE OF AN ELEPAIO

CHARLES VAN RIPER III

On 3 June 1973, while working on the northwestern slope of Mauna Kea, Hawaii at approximately 2,286 m elevation, I found an Amakihi (*Loxops v. virens*) building on top of an Elepaio (*Chasiempis s. sandwichensis*) nest. The Amakihi is a member of the endemic Hawaiian family Drepanididae whereas the Elepaio is an Old World Flycatcher (Muscicapidae). The nests (fig. 1) were placed in a lateral fork of a 7.9-m mamane (*Sophora chrysophylla*) tree, 6.25 m above the ground. I know of only one reference to superimposition of nests in Hawaiian birds (van Riper, Wilson Bull. 85:238–240, 1973)—Apapane (*Himatione sanguinea*) nests built on top of one another in a lava cave. I have found over 450 Amakihi nests on Hawaii, but in no other case have I observed a bird to build over another nest.

Both nests had typical shapes; the Amakihi nest agreed well with others I have measured for this species. The outer depth varied from 7.1 to 11.9 cm and outer width from 11.2 to 17.3 cm; the bowl was 3.3 cm deep and 5.1 cm wide. The nest rim thickness varied from 2.0 to 3.3 cm.

I watched the nest for 10 days, and although it appeared completed, the Amakihi never laid any eggs. Berger (Occ. Pap. Bernice Pauahi Bishop Mus. 24:1–8, 1969) stated that the breeding season of the Amakihi is protracted, extending from mid- or late-October to June. At the late date in the breeding season, with probable regression of the gonads and the resulting decrease in hormone level, desertion of this nest may not have been unusual. Nickell (Auk 68:

FIGURE 1. Amakihi nest on top of Elepaio nest.

447–470, 1951) reported this in other passerines. It is also possible that the unusual nesting situation may have disturbed the Amakihi, causing desertion.

Upon closer inspection I was surprised to find egg shell in the Elepaio nest. Not having observed the earlier stages of nest construction I do not know whether the Elepaio nest had been active when the Amakihi started building, or the egg had not hatched and fragments remained after the Elepaio had finished nesting.

The behavior of the Amakihi appears puzzling until nest placement in the Amakihi and Elepaio is studied more closely. Of the 68 Elepaio nests I have found on Mauna Kea, only two were placed in lateral forks as was the nest described here. The remaining 66 were placed either in terminal forks or woven around slender upright branches. Frings (M.S. thesis, Univ. of Hawaii, 1968), in her study of the Oahu Elepaio, found that all the birds studied built in slender-stemmed trees near the terminal parts of the branch. Berger (Hawaiian Birdlife, Univ. Press of Hawaii, Honolulu, 1972) reported that on Hawaii he found several nests on such small brittle branches of mamane that he was unable to check them. Approximately one-third of Amakihi nests I have found on Hawaii were placed as this nest was, in a lateral fork.

In order to see more clearly the relationship of nest placement between these two species I randomly selected 21 Elepaio and 42 Amakihi nests from the 1973–1974 breeding season and plotted the height of each nest from the ground in relation to the distance of the nest from the central axis of the tree (fig. 2). The distance from the central axis was measured from that point at which the tree left the ground, or tree-base.

Figure 2 shows that both species nest at approximately the same height from the ground, but appear to differ in the distance chosen from the central axis of the tree. The Elepaio prefers the more upright branches in the central portion of a tree to weave its nest around; most nests of this species are found fairly close to the main trunk of the tree. The five Elepaio nests clustered at 12 to 14 ft out were all placed in terminal forks of very large mamane trees that had fallen over and continued to grow. Thus, the measurement to the origin of the trunk at the

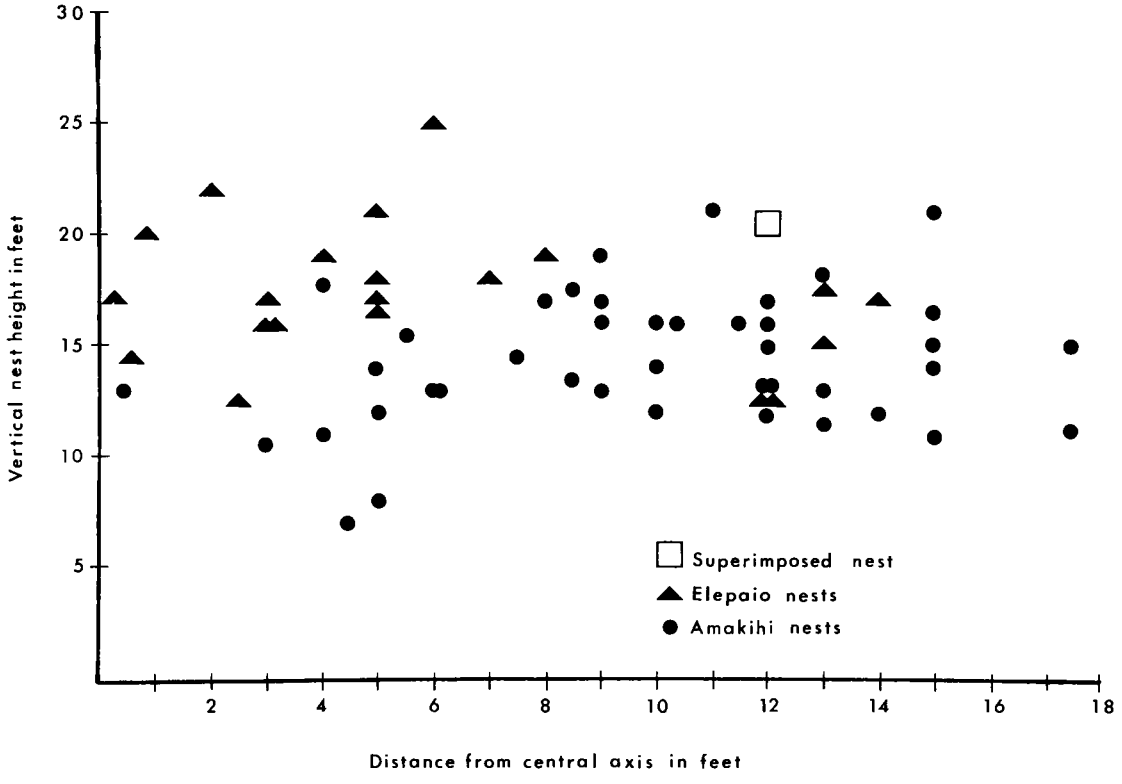

FIGURE 2. Height and distance from the central axis of the tree of 21 Elepaio nests and 42 Amakihi nests.

ground, because of the fallen trees, was altered as described. If the trees had been upright, all the nests would have been within three feet of the central axis.

The Amakihi, on the other hand, builds statant cupped nests usually placed on top of a forked branch and seems to prefer the area eight feet and outward from the main axis of the central trunk. The Amakihi that superimposed its nest on the one of the Elepaio, placed the structure 12 feet from the central axis, well within the zone of typical Amakihi nest placement and well outside the zone preferred by the Elepaio. As these two species nest in nearly identical habitat space, it is possible that this may be an overlap in habitat preference for nest-site selection.

I am grateful to the Hawaii Audubon Society, the International Council for Bird Preservation, and the Frank M. Chapman Memorial Fund, as well as Irene and Quinn Casey for their support of my field work. I also thank John Stimson, Sheila Conant, and Andrew J. Berger for their comments on the manuscript.

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SHRIKES FEED ON PREY REMAINS LEFT BY HAWKS

R. M. ANDERSON

I have observed an interesting relationship between Marsh Hawks (*Circus cyaneus*; also one Rough-legged Hawk, *Buteo lagopus*) and Loggerhead Shrikes (*Lanius ludovicianus*) in the grasslands of southeastern Arizona. The landscape is dotted with old yucca stumps that are used as resting and eating perches by various hawks. After watching the hawks for some time, I realized that a Loggerhead Shrike was concurrently present with each hawk. As a hawk left a feeding perch, almost invariably a shrike flew to the recently vacated spot and began feeding.

I investigated and recorded several of these shrike-follow-hawk instances. The feeding perches of the hawks were littered with fur and meat scraps of the hawk's prey, which apparently attracted the shrikes. I believe that the shrikes recognized the food opportunity and were alert to the feeding activities of the hawks. I once noticed a shrike calling near a perched Rough-legged Hawk. Within a few minutes, the hawk caught a rodent and returned to a yucca stump to feed, showing no recognition of the shrike even when the latter flew within ten feet and continued to call. When the hawk finished feeding and flew away (a period of about two min), the shrike flew to the vacated feeding perch and began to peck at the stump, where I subsequently found fresh blood.

I have not found any published remarks on such a commensal relationship between shrikes and hawks. In fact, the only reference I have found to hawk-shrike relations is that shrikes avoid hawks as potential predators (Cade, Living Bird 6:43–86, 1967). Although shrikes usually hunt "by watching and waiting for prey . . . or by moving actively about . . . in apparent attempts to flush quarry into flight" (Cade, op. cit.), it has also been noted that "carrion is sometimes eaten" (Bent, Natl. Mus. Bull. 197:142, 1950). While it is not unusual for shrikes to scavenge, it is interesting that they might learn to watch and benefit from birds they normally would avoid.

Shrikes are noted for their phenomenal vision, alertness, and aptitude for learning and association. The Northern Shrike (*L. excubitor*) exhibits "highly developed ability to return to specific locations which it has learned to associate with activities of prey, such as mouse holes, bird nests, and wasp nests" (Cade, op. cit.). We can now add the feeding perches of hawks to that list of food sources.

I thank Walt Anderson, Tom J. Cade, Stephen M. Russell, and Susan M. Smith for encouragement and editorial assistance.

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ADDITIONAL EXPLOITERS OF NECTAR

LANNY H. FISK
AND
DAVID A. STEEN

Within the last two years four observers have reported on the nectar feeding habits of various North American birds other than hummingbirds. In this note we would like to summarize these reports and, from our own observations and correspondence with other interested persons, add 12 new birds to the growing list.

The following birds have been observed to feed on sugar water ("man-made nectar") provided in various types of feeders, principally for hummingbirds: House Finch (*Carpodacus mexicanus*; Taylor 1973), Hooded Oriole (*Icterus cucullatus*; Fisk 1973), Hooded Oriole and Scott's Oriole (*I. parisorum*; Leck 1974). The House Finch, Scott's Oriole, Cactus Wren (*Campylorhynchus brunneicapillus*), Scrub Jay (*Aphelocoma coerulescens*), and Plain Titmouse (*Parus inornatus*) have also been seen feeding at hummingbird feeders by George H. Fisler (pers. comm. 1974). In Loma Linda, California, we have had House Finches and more recently Purple Finches (*Carpodacus purpureus*) as regular customers at our feeders. Hooded Orioles also visit routinely.

In addition, Mrs. A. J. Zimmermann (pers. comm. 1973, 1974) reports that she has had eight species of birds visiting her hummingbird feeders located in Ajijic, Jalisco, Mexico. These include three species of resident Mexican orioles: Wagler's (*Icterus wagleri*), Abeille's (*I. abeillei*), and Streakbacked or Scarlet-headed (*I. pustulatus*); and three which breed in the U.S. and winter in Mexico: Baltimore (*I. galbula galbula*), Bullock's (*I. galbula bullockii*), and Hooded (*I. cucullatus*). The Baltimore Oriole is also a regular visitor at hummingbird feeders during the breeding