

the significance of rabbit egg destruction on noddy breeding success. It probably has little impact on the population of Brown Noddies on Manana, but could be important locally. There are apparently no previous reports of rabbits destroying seabird eggs, but rabbits and seabirds occur together on many islands and this type of egg mortality is potentially widespread.

This paper is based upon a dissertation submitted by the author to the University of Hawaii in partial fulfillment of the requirements for the Ph.D. degree in Zoology. I thank Andrew J. Berger and John Dixon for their comments on this note, and the Hawaii State Division of Fish and Game for permission to work on Manana Island. This study was supported by the Department of Zoology of the University of Hawaii, by an NSF Graduate Fellowship, and by a Mount Holyoke College Faculty Grant to the author.—WILLIAM Y. BROWN, *Department of Biological Sciences, Mount Holyoke College, South Hadley, Massachusetts 01075*. Accepted 1 Nov. 73.

An albinistic Elepaio from Hawaii.—Few records exist of albinism in Hawaiian birds. Pekelo (1963, *Elepaio* 24: 17) described two Ricebirds (*Lonchura punctulata*) (an introduced species) on Molokai with all-white plumage. I can find no record of an endemic bird exhibiting this trait.

On the afternoon of 23 July 1973 I observed an albinistic Elepaio (*Chasiempis sandwichensis*) on the northwestern slope of Mauna Kea at an elevation of 6,950 ± feet. The bird seemed to be recently fledged as it was in the company of what appeared to be its parents. The plumage of the bird seemed entirely white. The bill was light colored, but the feet were not the pale pinkish color of a true albino. I was unable to record the eye color. The Elepaio appeared to have fully grown wing and tail feathers. One unusual aspect was the abnormal length of the rectrices; they seemed to be almost one-fifth again as long as those of the presumed parent birds.

Aside from the unusual tail length and lack of feather pigment, the bird appeared normal. It scolded repeatedly, using the "chit-chit" characteristic of the species, before flying away. I returned to the area on both 25 and 27 July but did not encounter the bird again.

The observations reported occurred during field work supported in part by the Hawaii Audubon Society, McInerny Foundation, and the International Council for Bird Preservation. I am indebted to Andrew J. Berger for reading the manuscript.—CHARLES VAN RIPER III, *Department of Zoology, University of Hawaii, Honolulu, Hawaii 96822*. Accepted 5 Nov. 73.

Notes on the behavioral ecology of Couch's Mexican Jay.—The U-shaped range of the Mexican Jay (*Aphelocoma ultramarina*) extends from southeastern Arizona and southwestern New Mexico south through the Sierra Occidental of Mexico, across mountain ranges at the southern part of the Mexican plateau, and thence north through the Sierra Oriental to the Chisos Mountains of Big Bend National Park in southwestern Texas (see Pitelka 1951, Figure 13). *A. u. arizonae* in Arizona and New Mexico and *A. u. couchii* in the Chisos Mountains represent the northern extremes of this U. Thus, although these two populations are separated geographically by only 400 miles, they are connected by a series of populations in Mexico that extend over a linear distance of about 1,800 miles. Recently Hardy (1961, 1969) and Brown (1963) have drawn attention to differences in morphology

and behavior between these two populations. Their data for *A. u. couchii* are based on Van Tyne and Sutton (1937) and Brandt (1940), who have provided virtually all of the information available on the biology of that form. We aim here to present information on this population that bears on questions treated by Hardy (1961, 1969) and Brown (1963).

Juvenile *A. u. couchii* develop a completely dark bill soon after fledging whereas juvenile *A. u. arizonae* retain the pale bill for an extended period (up to several years) (Hardy 1961, Brown 1963). Hardy (1961: 123, 126) concluded that age dimorphism in bill color and "strong social habits" (i.e. nest helpers) were strongly correlated in *A. ultramarina*, with the pale bill of immature *A. u. arizonae* being related to presence of nest helpers and the dark bill of immature *A. u. couchii* being related to absence of helpers. More recently he has reasserted this argument (Hardy 1969).

Brown (1963) relates degree of sociality to morphological characters in *A. u. arizonae* and the Scrub Jay, *A. coerulescens*. For example, he states that the most brightly and contrastingly colored form, the Scrub Jay, is far less social than the duller plumaged, slower-to-mature *A. u. arizonae*, and points out that *A. u. couchii* is intermediate in plumage characters and perhaps in behavioral characters. The highly social nature of the Florida race of the Scrub Jay, *A. c. coerulescens*, recently described by Westcott (1970) perhaps weakens this argument.

In both June 1972 and May 1973, we recorded three Couch's Jays simultaneously attending a nest containing small young. In both instances, our observations (4 hours of continuous watching at the nest in both 1972 and 1973) suggest that three probably was the actual number of participating adults. At two other sites, we recorded four and three adults scolding and otherwise behaving in a solicitous manner as we pursued recently fledged young. At a nest containing eggs we saw only two adults at the same time during two long periods of observation. Only two adults responded as we startled another juvenile and it began scolding us. The important point is that in *A. u. couchii*, as in *A. u. arizonae*, more than two adults may care for nestlings and fledglings. Thus this supposed difference between the two (Hardy 1961: 126; 1969, based on Van Tyne and Sutton 1937 and Brandt 1940) does not exist. One might hypothesize that flock size and structure in the Mexican Jay is related to habitat, and that in a richer, more productive environment the flocks will be larger and/or more stable (thus more nest helpers) than in poorer habitats, such as the Chisos Mountains appears to be.

Van Tyne and Sutton (1937) and Brandt (1940) call attention to differences in egg color between *A. u. couchii* and *A. u. arizonae*. They comment on the brown markings of *A. u. couchii* eggs, and contrast this with the unmarked greenish eggs of *A. u. arizonae*. On 11 June 1972 we found a nest of *A. u. couchii* that contained three completely unmarked eggs. These we checked later the same day. As the eggs hatched on the following day, we obtained no photographs. Thus a second difference emphasized by Van Tyne and Sutton (1937) and Brandt (1940), and used by Brown (1963) is not absolute.

Two other published characteristics of *A. u. couchii* might be mentioned. (1) Brandt (1940: 72-74) states that horsehair invariably was used in lining the nest, in contrast to nests of *A. u. arizonae*. None of four occupied nests we examined contained horsehair. Likewise Van Tyne and Sutton (1937) mention two nests in which the cup was lined with rootlets. (2) Van Tyne (1929) and Brandt (1940: 75) mention a rattle call given by *A. u. couchii* that has no counterpart in *A. u. arizonae*. Our observations on both forms agree with this.

In summary, differences between *A. u. couchii* and *A. u. arizonae* are less than previously reported. (1) Nest helpers occur in both races. (2) Some individuals of *A. u. couchii* produce unspotted eggs like those of *A. u. arizonae*. (3) Rootlets and other materials are used in lining the nest cup in both forms. Real differences in other traits do exist; e.g. immature *A. u. couchii* are black-billed, whereas immature *A. u. arizonae* are pale-billed; a rattle call is present in *A. u. couchii* but is absent in *A. u. arizonae*.

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LITERATURE CITED

- BRANDT, H. 1940. Texas bird adventures. Cleveland, Ohio, The Bird Research Foundation.
- BROWN, J. L. 1963. Social organization and behavior of the Mexican Jay. *Condor* 65: 126-153.
- HARDY, J. W. 1961. Studies in behavior and phylogeny of the certain New World jays (Garrulinae). *Univ. Kansas Sci. Bull.* 42: 13-149.
- HARDY, J. W. 1969. A taxonomic revision of the New World jays. *Condor* 71: 360-375.
- PITELKA, F. A. 1951. Speciation and ecologic distribution in American jays of the genus *Aphelocoma*. *Univ. California Publ. Zool.* 50: 195-464.
- VAN TYNE, J. 1929. Notes on some birds of the Chisos Mountains of Texas. *Auk* 46: 204-206.
- VAN TYNE, J., AND G. M. SUTTON. 1937. The birds of Brewster County, Texas. *Univ. Michigan Mus. Zool., Misc. Publ. No.* 37.
- Westcott, P. W. 1970. Ecology and behavior of the Florida Scrub Jay. Unpublished Ph.D. dissertation, Gainesville, Univ. Florida.

J. DAVID LIGON and SANDRA L. HUSAR. *Department of Biology, The University of New Mexico, Albuquerque, New Mexico, 87131. Present address of second author: Bird and Mammal Laboratories, National Museum of Natural History, Washington, D. C. 20460. Accepted 6 Nov. 73.*

Mobbing Red-winged Blackbirds force American Kestrel into water.—On the morning of 20 June 1973, while returning from our small mammal study sites on the Farm River estuarine marsh, New Haven County, Connecticut, we watched a highly unusual outcome of Red-winged Blackbirds (*Agelaius phoeniceus*) mobbing an American Kestrel (*Falco sparverius*). When first seen, the kestrel was flying away from the shore at a height of approximately 1.5 m above the water surface, pursued closely by a small flock of Red-wings that flew above and around the falcon. The Red-wings repeatedly scolded, buzzed, and stooped towards the kestrel's head. Although we noted no actual contact, their aggressive actions from above forced the kestrel towards the water. The Red-wings quickly followed the kestrel down and the latter, while trying to evade their renewed attacks, fell into the water.

The kestrel immediately swam towards the near shore, approximately 8 m dis-