

FROM FIELD AND STUDY

Fasting of Captive Shearwaters.—Richdale (Condor, 47, 1945:55) states that for young Sooty Shearwaters (*Puffinus griseus*) intervals between feedings are as long as ten days, and correlates this with the sometimes very distant feeding grounds of the parents. Lockley (British Birds, 23, 1930: 202-218) speaks of an enforced 12-day fast of young Manx Shearwaters (*Puffinus puffinus puffinus*) just before taking flight from the breeding grounds. With this rather remarkable fasting ability in mind, we brought two young Wedge-tailed Shearwaters (*Puffinus cuneatus pacificus*) about five weeks old back to the University of Hawaii campus from one of Oahu's small offshore islands. They were kept in separate compartments of a heavy, partly dirt-filled crate under conditions roughly comparable to their natural burrows, and their growth, vitality, and loss of weight during fasting were observed.

Neither food nor water was given to the two shearwaters for 21 days. During that time both birds lost 52 per cent of their original weight (470 and 466 grams reduced to 226 and 222 grams, respectively). The rate of loss during the first week or ten days was comparable to, although somewhat slower than, that in birds studied by Richdale (*op. cit.*: 59). The rate of loss in the captive birds slowed down markedly after approximately the first ten days, for both lost an average of 155 grams during the first ten days as compared to 83 grams in the last ten days. This change was visibly correlated with lessening activity and vitality.

Growth of the captive birds was considerable in spite of continued loss of weight. The wing-spread increased over three inches and the length of rectrices over 1½ inches in both birds during their fasting period. The rate of growth appears to be closely comparable to that found by Richdale except during the last five days of captivity when growth was much slower or nearly stopped. One of the captive birds became noticeably quiet and weak during the last week, but the second only slightly so. Both quickly became normally energetic and altercations when feeding was begun. The birds were returned to their offshore island shortly after this and exchanged with two well-grown young which were put in empty burrows. On the basis of Lockley's work and the evidence of the present study, it was hoped that the displaced birds would be able to complete maturation and take flight without further feeding.—FRANK RICHARDSON, *University of Nevada, Reno, Nevada, November 5, 1948.*

Starling and Rusty Blackbird Records for Boulder County, Colorado.—Although the Starling (*Sturnus vulgaris*) is no longer rare as a winter visitor in Colorado, there are still few records of this bird as a nesting species within the state. Breiding (Wilson Bull., 55, 1943:247) reported nesting Starlings in Denver on May 16, 1943, and Niedrach (Wilson Bull., 57, 1945:261) observed several nests near Barr, northeast of Denver, during the spring of 1945.

Throughout the winter of 1947-1948, I occasionally recorded three to six Starlings in a plains cottonwood river bottom five miles northeast of Boulder, Colorado. These birds remained in the vicinity into the spring; and on May 14, three nests were located in cottonwood trees around the periphery of a Great Blue Heron rookery. Young could be heard in one of the nest cavities; and all three pairs of parents were busy bringing insect food to their respective nests. This is the first nesting record of Starlings within Boulder County and perhaps is indicative of similar unrecorded occurrences throughout the eastern half of the state at the present time.

Another species new to records from Boulder County is the Rusty Blackbird (*Euphagus carolinus*), which was first observed in the same river bottom area on December 7, 1947. For a period of twenty-two days, this bird, identified as an immature female, was repeatedly seen in the vicinity of a weed-choked irrigation creek, often wading in the shallow water as it searched for food. It had the interesting habit of picking up submerged leaves with its bill, flipping them upside down on the bank, and then picking off the aquatic organisms present. Usually the bird was alone, but several times it was seen in company with Red-winged Blackbirds or Starlings. It was last noted on the afternoon of December 29. That evening, after about two weeks of fairly mild weather, a storm brought almost a foot of snow; and, with the snowfall, the bird disappeared. The last record of the Rusty Blackbird in Colorado known to me is that of Bergtold (Bird-Lore, 37, 1935:78), who recorded it in the Denver region on December 25, 1934.—R. G. BEIDLEMAN, *Department of Zoology, Colorado A. & M. College, Fort Collins, Colorado, November 27, 1948.*