

adult males were observed feeding young in different nests located about 20 miles south of Zamora, Michoacan, on June 19, 1953. The species was first observed in the area in June, 1941, and the colony was still present in the summer of 1956. The song of the Mexican birds is of the same quality and style as that of Texan population. The form of the song of this species is so variable from individual to individual that it is not possible to make fine points of distinction on the phrasing. The form of the song of Fuertes' Oriole (*I. fuertesi*) varies in the same way and this makes it extremely difficult to compare the songs of the two species. It may be noted that Fuertes' Oriole is a bird of the eastern lowlands (during the breeding season) where the nearest individuals are 200 miles or more away from any known breeding Orchard Orioles; and, as has been pointed out by the Grabers (1954. *Condor*, 56:274-281), the lightest Orchard Oriole male is darker than the darkest of the Fuertes Orioles (there are no intergrades). The Fuertes Oriole seems to be quite common locally at the extreme northern limit of its range, in southern Tamaulipas. Nesting begins in Tamaulipas about the middle of May; a pair was observed with young out of nest in southern Veracruz (La Piedra) on June 29, 1952, which would seem to indicate that they nest no earlier in the south.—L. IRBY DAVIS, *Box 988, Harlingen, Texas, January 10, 1957.*

**Notes on the Red Crossbill in Minnesota.**—The country-wide invasion of Red Crossbills (*Loxia curvirostra*) in the fall, winter and spring of 1950-51 (Tordoff, 1952. *Condor*, 54:200, and others) was but poorly recorded in Minnesota. Two sight records were published (Oman, 1951. *Audubon Field Notes*, 5:139, and Flaherty, 1952. *Flicker*, 24:25), and four specimens were preserved. The identification of these specimens and the re-identification of the 23 other Minnesota specimens of the Red Crossbill in the University of Minnesota Museum of Natural History collection reveal the need for several changes in the taxonomic appraisal of this species as presented by Roberts (1936. "The Birds of Minnesota"). An additional 11 Minnesota specimens from the collection of H. F. Kendall of Virginia, Minnesota, were examined. Sheridan S. Flaherty (*loc. cit.*), of Morris, Minnesota, kindly loaned photographs of the Red Crossbills that visited his feeding station between March 23 and May 31, 1951. One or more birds were seen daily during that period, with nine seen on the latter date. They were believed to be preparing to nest, although this seems improbable since Morris is situated in the prairie region of central western Minnesota. The subspecific identity of the birds could not be determined.

The material studied confirms Griscom's statements (1937. *Proc. Boston Soc. Nat. Hist.*, 41:5) that the races *minor* and *sitkensis* (of the American Ornithologists' Union Check-list, 1931) occur in Minnesota, and allows us to add the race *benti* to the state checklist. Apparently Griscom did not include in his monographic revision the Minnesota specimens recorded in this study.

These specimens are identified as follows:

*Loxia curvirostra sitkensis*.—Five females measure: wing, 77.3-82.0 mm.; culmen, 13.3-14.3; two males measure: wing, 83.0 and 83.5; culmen, 14.2 and 14.7. Also the culmen (rhinotheca *in situ*) of one male skeleton measures *ca.* 14.8 mm. Dates represented are July and August, 1922 (five specimens); May, 1923 (one); and January, 1951 (two).

Griscom (*op. cit.*:124) lists specimens of this form from Illinois taken in April and June, 1923, but apparently he did not recognize these as indicative of an extensive flight year. There are four specimens of *sitkensis* in the Louis Agassiz Fuertes Collection at Cornell University taken at Ithaca, New York, in January, 1923.

*Loxia curvirostra minor*.—Four females measure: wing, 83.2–88.3 mm.; culmen, 15.0–17.0; 12 males, wing, 86.8–93.0; culmen, 15.1–17.4. Ten of these were breeding birds taken by T. S. Roberts at Grand Marais, Cook Co., northeastern Minnesota, August, 1879. The only post-1900 specimen in the University of Minnesota Museum of Natural History collection is a male found dead near Minneapolis on February 22, 1956. There are apparently no valid records of *minor* outside the boreal regions during the 1950–51 flight (Tordoff, *loc. cit.*) of the western populations.

Roberts (*loc. cit.*) cites several sight records of juvenal Red Crossbills, but to date no specimens from the state have been reported. The collection of H. F. Kendall contained 11 Red Crossbills taken between August 12 and October 4, 1931; all in various stages of post-juvenal molt. However, the progress of this molt does not correlate with the date on which a given specimen was collected. A male taken August 20 has nearly completed the molt, whereas two males and a female, taken August 30 and September 1, have but a few new feathers on the back, throat and breast. Males taken on August 12 and 20 have more than half completed this molt, while a male taken October 4 has replaced fewer than half his juvenal feathers. The males are acquiring the mottled plumage ascribed to first winter birds of the eastern race, with red and green feathers interspersed. Most of these specimens show evidence of having been rather fat when collected. The two females measure: wing, 90 and 91 mm.; culmen, 17.0; males, wing, 89.7–93.4; culmen, 16.1–17.6. Gratitude is expressed to Mr. Kendall for his loan of these birds.

*Loxia curvirostra benti*.—Two crossbills of this race flew into a window during a snowstorm on November 15, 1950, in a suburb of Minneapolis. These were an adult male and a first-year male; they measure, respectively: wing, 98 and 90 mm., culmen, 20.5 and 18.7.

Appreciation is expressed to Harrison B. Tordoff who examined certain specimens, and confirmed identification of those representing the race *benti*.—ROBERT W. DICKERMAN, *University of Minnesota Museum of Natural History, Minneapolis, Minnesota, April 30, 1957.*

**The look-out perch as a factor in predation by Crows.**—On the grounds of the Preston Laboratories at Butler, Pennsylvania, we normally have a couple of dozen Mallards (*Anas platyrhynchos*) of which about 10 are females. They are fully flighted, and nest over a wide area inside the fence (100 acres) and sometimes outside it. We also have a pair of Common Crows (*Corvus brachyrhynchos*) which destroy all the early nests and most of the later ones, and also (apparently) catch the ducklings. This predation is successful to the point of holding the numbers of ducks to about two dozen, the number of ducklings raised per annum being three or four at this population density. It is probable that other predators help, perhaps raccoons (*Procyon lotor*) and opossums (*Didelphis marsupialis*) more particularly, but since eggs disappear from nests in the middle of the day and the other predators are essentially nocturnal, and since we observe the crows watching and searching, we believe that the crows are the effective agents. Each female duck probably makes at least three attempts to nest, and probably lays in excess of 20 eggs, since there are often 15 or more eggs in the first nest, though only half a dozen or so in late ones. Out of some 200 eggs, probably 20 hatch, 15 ducklings reach the water, and 3 or 4 are raised. This is an efficiency of about 2 per cent, and is much lower than Lack (1954. "The Natural Regulation of Animal Numbers," p. 79) gives in his tabulation.

The crows also discover and destroy the nests of Ring-necked Pheasants, (*Phasianus*