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RENESTING AND SECOND NESTING OF INDIVIDUALLY MARKED RED-WINGED BLACKBIRDS

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Renesting and second nesting of 26 color-marked female Red-winged Blackbirds (*Agelaius phoeniceus*) were studied during the spring and summer of 1962. Renesting was nesting that occurred after an unsuccessful attempt, and second nesting was nesting that occurred after a successful nesting (at least one young fledged).

PROCEDURES

The study was conducted on the Patuxent Wildlife Research Center, Laurel, Maryland, in habitats where the nesting population of Red-wings is large. The approximate nest density that prevails in this habitat is indicated by the results of an intensive search for nests in 1961, when 144 active nests were found in 150 acres of nesting habitat. More detailed nest studies were made in 1962: 26 nesting females were caught in nest traps and were individually marked with several layers of colored plastic tape wrapped around the tarsus of each leg. Previous testing of this type of color marker on captive and wild Red-wings had shown that such markers would remain for at least 3 months. Birds also were banded with Fish and Wildlife Service numbered bands. Each nest was identified by a numbered white tag 1 1/2" x 3" placed several feet from the nest. Twenty of the marked birds were in three adjacent upland hayfields totaling about 20 acres, and 6 were in a marsh of about 19 acres. Seven of the females were subadults in plumage and 19 were adults.

RESULTS

Sixteen of the 26 color-marked females were observed on nests with eggs before May 21. There was ample time for these birds to renest or to establish second nests. Nine were unsuccessful in the initial nesting attempt. Of these, three were not seen again and six renested. Four of the renestings were successful and one was unsuccessful; the success of one was undetermined. Seven of the 16 females were successful in the first observed nesting and three of these were seen with second nests. Of the three birds with second nests, one brought off a second brood. The young from the two nestings fledged about May 29 and about July 21. All three birds that attempted to raise two broods were adults. All nine of the birds attempting renesting or second nesting built the first new nest within 50 yards of the original nest. One of the nine successfully raised a brood in a hayfield and established a second nest in the same field; mowing destroyed this nest and the two eggs that it contained. She then built a third nest 600 yards away in a marsh. This nest contained two small nestlings on July 18, but it was empty when it was checked again on July 24. It is doubtful that the young could have fledged within so short a period.

Nine adult male Red-wings were caught in mist nets and traps. These also were color marked and banded, but only three were later spotted guarding nests. From May 2 to June 29, a marked male Red-wing was seen guarding the territory of the female that successfully raised two broods. On July 5, he was seen more than 1,500 yards from this territory feeding in an oatfield with a flock of about 50 Red-wings; he was not seen again even though the female tended nestlings through July 20. Two other marked males, both trapped during the first week in May, were seen on territory in July near the point of capture.

An influx of new birds was observed in one field during the late nesting period. All 11 female birds observed nesting in this field before June 9 had been caught and marked, as had most birds nesting in adjacent areas. No new active nests were found from June 9 until June 21, when seven new active nests were found in an area of the field not previously used for nesting. The birds at these new nests were unmarked.

Mowing destroyed most Red-wing nesting habitat during the latter part of the nesting season in the upland hayfields studied. Red-wings were not found nesting in the remaining nesting habitat along the fence rows or in other undisturbed areas of the fields, such as small patches of unmowed cover.

The marsh studied contained unmowed nesting habitat throughout the nesting season, and the only bird observed with two successful nests constructed both in the marsh.

DISCUSSION

It may be that second broods are more common for Red-wings that nest in warmer regions than for those that nest in colder regions. In this study, seven females marked on nests with eggs before May

21 were successful in the first observed nesting. Three of these were later seen with second nests. Meanley and Webb (1963) show that their finding of a larger production rate of Red-wings in areas of Maryland than in an area in Wisconsin (Nero, 1956) is probably the result of more double brooding in Maryland. They observed second brooding in four color-marked Red-wings at areas on the Eastern Shore of Maryland in 1960. Nero studied nesting of Red-wings in a marsh near Madison, Wisconsin. He writes "... double broods are uncommon in the Redwing in this area. Only three cases of double broods were recorded in this study (in 1949, all successful). In 1950, the year for which the most data are available, 20 marked females had successful first nests, but none of the females returned to the marsh for a second brood."

SUMMARY

Renesting and second nesting of 26 color-marked female Red-winged Blackbirds were studied in a area in the Coastal Plain of Maryland. All birds marked at nests with eggs before May 21 that did not successfully raise a brood renested (except three that disappeared soon after being marked). Three cases of second nesting were found.

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GENERAL NOTES

A. C. Bent's application for a collecting permit (1887), with outline of his plans for ornithological research.—Arthur Cleveland Bent (1866-1954) was long known by many bird students as the Dean of American Amateur Ornithologists and as the author of the famous monographic series, "Life Histories of North-American Birds," published by the United States National Museum. This series, begun in 1919, was published throughout his lifetime (19 volumes) and is now being completed by his successors. He lived at Taunton, Massachusetts, where he was a prominent businessman and devoted his spare time throughout a long life to the study of ornithology. He was an Associate in Ornithology at the Museum of Comparative Zoology and a Collaborator at the Smithsonian Institution. He served as president of the American Ornithologists' Union 1935-37. His life was briefly sketched by Taber (*Auk* 72: 332-339).

As a young college student at Harvard University (A. B. 1889), Bent was given a permit to collect birds under the authority of the Boston Society of Natural History. The essential part of his permit reads as follows: