

**How many times does a Song Sparrow sing one song?**—On my arrival at Duneside Inn, Chesterton, Indiana, June 24, 1944, I found a male *Melospiza melodia* that had not been present on my earlier visit in late May. This bird was unmated and sang persistently in the vicinity of my cottage. Some of his songs were striking and it was soon evident that he changed from one to another more frequently than had the two Song Sparrows that I had studied most in Ohio. Hoping to find in this singer a bird with a larger repertoire than I had observed before, I learned his songs by heart, discovering that he had ten (only one more than 4M, one of my Ohio birds). I got a full record of all songs for four hours (12:50–4:50 C. S. T.) on the afternoon of June 27 and for half an hour (8:52–9:22) on the morning of June 29; records of the series given were obtained from 4:45–5:45 a. m. on June 27 and 8–9 a. m. on June 28.

The four afternoon hours compare well with the "uninhibited singing" of the Ohio birds as shown in Table XIII (Nice, M. M., Trans. Linnaean Soc. N. Y., 6: 121, 1943); there were 122 songs in 19 series, an average of 4.8 series per hour, 6.7 songs per series, and 30 songs an hour. The three morning records, however, showed that his "highly stimulated" singing differed from that of 1M, 4M and 10M, that averaged 11.5 series per hour; for on June 27 there were 21 series in the hour and the next day 20 series, with 10 series in the half hour on the third morning. This pattern resembles that of 187M that averaged 20.5 series in four hours in March, 1934. (I did not get a chance to check this bird later as he disappeared in early April; I thought the shortness of his series might be due to his youth for he was less than a year old.)

As to length of series, on June 27, ten series of the Indiana male averaged 9.2 songs, and ten on the 29th, 11.2 songs, in contrast to the three Ohio birds of Table XIII that averaged 20.5 songs per series in the highly stimulated state. On June 29, the whole repertoire of ten songs was gone through in the half hour, but the day before four songs were repeated before the repertoire was completed. The longest series on June 27 reached 18 songs; on June 29, 23 songs. The longest series I ever recorded from 1M was 58 songs; from 4M, 72. When singing steadily the Indiana bird averaged four songs a minute; the Ohio birds averaged about five. Two of the Indiana songs had two versions; one varied in the middle portion, one in the last. It is clear that with this bird each song held the field for a shorter period than had been true with three of four birds in Ohio—some three minutes in the highly stimulated state with the former, five with the latter. This is an easy matter to check when a Song Sparrow is singing steadily; an hour's observation will give the total number of songs and the number of series, since the change from one song to another is striking.

May I call attention to two errors in the above-mentioned Table XIII? In lines 3 and 4, the four instances of "songs per hour" should be omitted; in the last two columns, "6 231" (directly under "34 20.5") should be omitted. Another error which calls for correction occurs in Table V on p. 70; "Group V" should be inserted above "Alaudidae."—MARGARET M. NICE, *Chicago, Ill.*

**Cowbirds anting.**—At 6:30 a. m. C. S. T., June 28, 1944, I was watching two *Molothrus ater* feeding on the lawn at Duneside Inn, Chesterton, Indiana, when I noticed the female holding her wings out from her body and apparently preening them. Suddenly I realized that for the first time I was witnessing anting by a wild bird. Quickly and unobtrusively she ran her bill along the outer primary of first one wing, then the other, but her tail was not drawn forward as in typical anting, as seen in Ivor's birds (*Auk* 60: 51–55, 1943) and in my Song Sparrows and Bobolink. After going through this performance some half-dozen times in different places in an

area of perhaps two square yards, she walked into taller grass, whereupon the male anted in the same casual manner and for about the same number of times. The birds flew off and I examined the ground, finding many small hills of *Lasius niger* and several individuals of the genus *Formica*.

Ivor (1943) reports the Cowbird as not anting. In answer to inquiries, he writes me that this has been true of an adult female three seasons in succession and of a young male and female tested when 32, 35, and 41-43 days of age; however, the male anted once with specimens of *Tapinoma* sp.? when 46 days old. The failure of his adult bird to ant in the aviary, and the mild manner in which the two individuals I watched performed in the wild, would seem to show that the tendency to ant is weak in *Molothrus ater*. The inconspicuous way in which anting was carried out in this instance makes me wonder whether this behavior may not be more common than is generally supposed; I would not have recognized it had I not previously seen it executed in extreme form by hand-raised birds.—MARGARET M. NICE, *Chicago, Ill.*

**Fall migration of the Golden Plover at Fort William, Ontario.**—The Golden Plover (*Pluvialis dominica dominica*) is a regular, but uncommon, autumn migrant at Whitefish Lake, 50 miles southwest of Fort William, where individual birds are occasionally seen during late September and October. Such observations are not unusual, but we were surprised to see 25 of these birds feeding in low, wet fields in Paipoonge Township, eight miles west of Fort William, on October 10, 1941. Only an occasional plover was seen at Whitefish Lake during the fall of 1942, but in 1943, it appeared in large numbers west of the lake-head city. Twelve were noted on September 23 in the same region where they appeared in 1941. On the morning of September 26, a flock flew over the outskirts of the city and that afternoon Golden Plovers were feeding in low fields, cleared of hay and grain, along both sides of the Trans-Canada Highway for about six miles, not only within the city limits but also in the municipalities of Neebing and Paipoonge.

It was difficult to determine how far their invasion extended back from the highway but we conservatively estimated their number at 1000. They were equally common on September 30 but their number had decreased by October 3, when we collected an adult female, now in the Ontario Museum of Zoology, No. 68756. They gradually decreased until October 26, the last date on which they were noted, when only 12 were present. During October they had been such a conspicuous feature that several inquiries came in as to the identity of the "ploverlike birds" so abundant in the region.

The present concept of the autumn migration of the American Golden Plover has been well summarized by Roberts ('Birds of Minnesota,' 2nd ed.: 466-470, 1936). He says: "The main fall migration is first eastwards to Labrador and Newfoundland, thence south to South America, across the ocean . . . a few, formerly many, passed south in the fall, through the Mississippi Valley." In recent years, Roberts reports a slight increase in their numbers during fall migration; adult birds, singly or in small parties, precede later flocks of juveniles. The birds noted at Fort William were undoubtedly following the interior route and probably originated north of Hudson's Bay.—A. E. ALLIN, *Fort William, Ontario*.

**Wettable water birds.**—That cormorants and anhingas have many peculiarities in common is evident from accounts of their characteristics and relationships. One point that seems to have received little public notice is that, although highly aquatic in habits, these birds have plumage that is not very water-resistant but which in the course of their under-water activities becomes thoroughly wet. This wetting fre-