

THE FURTHER HISTORY OF A NESTING PAIR OF
JUNCOS

By WENDELL P. SMITH

IN a former number of the *Bulletin* (October, 1928) we published notes resulting from a season's observation of the Slate-colored Junco (*Junco h. hyemalis*). The present paper is a continuation of the study, the more interesting, perhaps, because one of the individuals, the female, No. A87460, a return-1, was a subject of the former study.

The area occupied by the pair (A7999 and A87460) during 1928 was closely watched in the spring of 1929, and while a pair of Juncos took possession, neither individual was banded. We had almost given up hope of any of the family of the preceding year returning, when, on June 8th, about eleven hundred feet west of this area, a nest containing four young some four days old was found. The parents, as usual, came around scolding, and one of them was seen to be wearing a band. A sparrow trap placed near caught this individual, and its identity was established.

The site of this nest was on the side of a steep bank bordering a bog. Two thirds of the area surrounding was wooded, and the remainder was open pasture containing a few scattering trees. The forest, while containing a variety of species of trees, was predominantly evergreen, and white pine (*Pinus Strobus*) the most numerous, with hemlock (*Tsuga canadensis*) a close second. The nest itself was composed of dried grasses placed in a depression evidently of artificial origin, and was so arranged that the bank above partially overarched, thereby affording protection from rain. A clump of ferns partially concealed it.

Of the parent's care of the young, little of additional interest was learned. The male parent, who soon acquired an identity as C1505, was more industrious than his predecessor, A7999. During the periods under observation he came nearer doing his share of the feeding. The young were fed a number of insects, these being caught in the air. Among the number, a certain medium-sized moth was noted and an unsuccessful attempt to catch one of these was seen, the bird being unable to gauge its movements to intercept the moth in its irregular flight.

The young were banded in the nest and bore the series C1501-04. On the 14th of June, they left the nest, the first

leaving before 6.00 A.M. and the last about 10.00 A.M. Some followed the bank, and others flew out into the bog, but the initial flight carried none farther than one hundred feet from the nest. A series of heavy thunder-showers prevented me from following the fortunes of the family further that day, but in the morning of the 15th, three young were found in the bog and all separated from each other, two by at least a hundred and fifty feet. One individual was two hundred feet from the nest, while one had probably moved but little since its first flight. They could fly well, but, owing to the shortness of their tails, they experienced difficulty in alighting. Both parents were with the young until June 30th. After that date the female was not seen with them, but the male associated with them intermittently until July 5th. In the meantime the family moved about, traveling along the top of the wooded bank where it bordered open pasture. On June 24th, they reached their maximum distance from the nest in these wanderings, approximately one thousand feet and then began to retrace their way, returning to within four hundred feet on the 25th and, on the 26th, to within one hundred feet. From this time on they could be found at distances varying from a hundred and fifty to four hundred feet from the nest. Gradually parental care lessened and finally disappeared. No anxiety was shown by the male on July 1st, when we approached the young. This was coincident with the development of mature behavior in the young birds, the latter uttering the adult alarm-note and flying up displaying the white outer tail-feathers conspicuously. After July 4th, we did not hear the infantile lispings note. They apparently disappeared from the locality on July 6th.

Preparations for a second brood probably began about July 1st. On the second we saw the male and female near the first nest and a hundred and fifty feet from the young. The male was singing, and the female was fluttering excitedly and displaying her white outer tail-feathers, while uttering a twittering note resembling the call of the young but lacking the lispings quality of the latter. After July 6th, the male spent much time in singing. Before July 1st singing had been an occasional indulgence but from this time on it became more frequent and regular and after the 6th consumed hours. He sang from a number of places within a radius of six hundred feet and seldom nearer than three hundred. Search failed to locate the second nest until July 14th, when it was found in the open pasture at a distance of a hundred and twenty-five feet from the first nest. It was unshaded, although the nearest tree, a small balsam fir

was only twelve feet away. This nest was located in the side of a grass hummock, and position and construction resembled that of the first nest. At the time of its discovery the nest contained four young a few hours old. This brood disappeared during the night of July 18th. The identity of the marauder could not be determined, but as the nest had been torn out bodily from its position, a mammal was undoubtedly responsible, and as a skunk was seen hunting in the vicinity at dusk of the preceding night, suspicion falls upon that species.

On July 19th no trace of the parents could be found in the area, and we feared that they had abandoned it, but on the 21st the female was seen on the bank bordering the bog, at a point seventy-five feet distant from the second nest and fifty feet from the first, evidently engaged in nest-building. A few feet away a completed nest lay which had been torn from its position. The bird scolded us for a few seconds and then flew into the bog, but returned shortly and disappeared in grass at the spot from which she had been flushed. We could not see her after she alighted, and, because of previous experience with this species when nest-building, did not dare to make further observations for fear of causing her to abandon the effort. This fourth nest was found completed on the 22nd. Position and construction of both the third nest, which had been partially destroyed, and the fourth, were similar to that of the first and second. Like the second both of the later nests were built in the open. The dried grasses used in the construction of the two later nests apparently came from one spot about ten feet away. On July 25th, the first egg was laid, and on July 27th the clutch was completed. Incubation began with the second egg on the 26th.

During the season of 1928, A87460 showed some degree of regularity in leaving the nest for food. One of these feeding-periods came between 8.30 and 9.00 A.M. This year the following schedule was observed: On July 30th the bird left the nest at 8.45 and returned at 8.59 A.M.; the 31st, left at 8.43, returned at 8.48 A.M. On August 1st the times of leaving and of returning were 8.48 and 8.58 A.M. respectively, and for the 7th, 8.49 and 9.12 A.M. Another period came about noon as the following time-table indicates: On July 28th, time of leaving was 12.10 P.M. and time of return 12.25; August 4th, 11.45 and 11.59 A.M.; August 5th, 12.10 and 12.21 P.M. At one time we found the nest vacant at 3.15 P.M. This seemed to indicate feeding once in three hours, but we could not keep constant watch in order to determine it.

The bird in leaving the nest flew to a tree near by, usually a

small larch fifteen feet away. After a moment's careful scrutiny of her surroundings, during which she uttered the alarm-note, she would fly to a sweet-fern (*Myrica asplenifolia*) patch, forty feet distant in the opposite direction where food was obtained. Sometimes the course was varied by flight to another tree, this being at right angles to direct line to feeding-ground. In returning, much the same course was followed but the bird never flew directly to the nest, always alighting several feet away and hopping, as inconspicuously as possible, the remaining distance. Once we observed a bath in a small rill issuing from a spring, thirty feet from the nest. This followed the feeding-period, and upon its completion and a moment's rearranging of feathers the bird returned to the nest.

Two of the eggs hatched on August 7th, and the third on August 8th, giving an incubation period of twelve days. The male, who for the most part had been absent during incubation, appeared on August 9th and took part in caring for the young. In our observations during 1928 we made notes on the development of the young, and this year the opportunity for checking these was improved. With one exception the observations tallied. In 1928 we described the color of the natal down as the "deep gull gray" of Ridgway's "Color Standards and Color Nomenclature." but, owing to deep shade and cloudy weather, we had very poor light. This year, under better conditions, the natal down seemed clearly the "deep neutral gray" of Ridgway's "Color Standards."

The young of the third brood left the nest on August 18th, bearing bands numbered C1513-15, having spent from ten to eleven days in the nest. Their first flight carried them to some bushes seventy-five feet distant, where they spent the night and part of the following day. On the 20th they were found two hundred feet from the nest. During the following three days the family remained within this area, the limits extending perhaps one hundred feet farther away from the nest. On the 26th one of the young with a parent was seen four hundred feet away from the nest in another direction, while the other parent, also accompanied by at least one of the young, was at least three hundred feet from the nest in the opposite direction, making the two divisions of the family some seven hundred feet apart; but on the 27th they were reunited in the bog and here they remained until September 4th, when they seemingly disappeared, for careful and repeated search after that date failed to locate them. On the 7th the woods seemed full of Juncos, indicating that the southward movement had begun.

Of this brood, we think one hundred per cent survived to the

time of departure from the locality, and of the first brood at least three of the four were living at the time their parents left them. Next year we shall look forward to the possible return of some of the family, when opportunity for further study will be afforded.

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EVENING GROSBEEK RECOVERIES INDICATING AN EAST-AND-WEST MOVEMENT

By M. J. MAGEE

In my paper "Evening Grosbeak Recoveries," published in the April, 1928, number of the *Bulletin*, I stated: "Dr. Christoferson and I had suspected for some years that there was more of an east-and-west movement of our Evening Grosbeaks than a north-and-south one." Recoveries reported from localities east of my banding station were: two from around Quebec City; one from Massachusetts; and one from Connecticut. To the west of my station was one from Menominee, Michigan, one hundred ninety miles west-southwest of the Soo.

This year (1929) has added three more recoveries as follows:

No. 581875 Adult female. Trapped by me January 27, 1929.
Banded at Hanover, New Hampshire, March 9, 1928.

No. 691399 Adult male. Banded by me February 2, 1929.
Found dead at Northome, Minnesota, about May 15, 1929.

No. A210271 Adult male. Banded by me March 8, 1929.
Trapped at Karlstad, Minnesota, May 24, 1929.

Karlstad is well up in the northwest corner of Minnesota in Kittson County. From that point to Quebec and New Hampshire gives an east-and-west distance of over twelve hundred miles, with Sault Ste. Marie about half way between the two extreme localities.

This summer, as usual, Evening Grosbeaks can be found in numbers, from thirty-five to a hundred and twenty-five miles west of Sault Ste. Marie. In June I got a report that a large flock was at Eckerman, thirty-five miles to the west. June 30th I drove out to see for myself. The Grosbeaks were picking about on the ground, right at the side of the road, where salt water from ice-cream tubs had been dumped. Coffee-grounds were also thrown in the same place. I was told that the birds were after the coffee-grounds, but I think it was the salt they wanted. I counted thirty-two on the ground at one time, eight of which were banded birds. I was informed that it was not