

No. 135,880 banded May 18. No yellowish on rump. Chin brownish-buff or tan.

No. 135,885 banded May 18. Very yellowish rump. One reddish feather chin.

No. 135,904 banded May 18. A few reddish feathers rump and upper tail coverts. No yellowish on rump.

No. 135,917 banded May 19. Yellowish rump. A few feathers breast tinged reddish.

No. 135,919 banded May 19. A number of reddish feathers rump. Throat slightly tinged, brownish-buff or tan. No yellowish on rump.

No. 135,949 banded May 20. No yellowish on rump. Throat tinged brownish-buff or tan.

No. 268,273 banded May 21. Some very bright yellowish feathers rump. Two reddish feathers upper tail coverts.

No. 137,212 banded May 26. No yellowish on rump. A few reddish feathers back right eye.—M. J. MAGEE, 603 South St., Sault Ste. Marie, Michigan.

Notes on the Breeding of the Carolina Junco (*Junco hyemalis carolinensis*) in the Mountains of North Carolina.—It has been my custom for several years past to spend a certain amount of time in the mountains of western North Carolina, and the bird life of this region has always claimed my attention, and many interesting observations have been made from time to time in connection with the breeding of birds which frequent the higher ranges of the Blue Ridge Mountains.

If I were called upon to name any one species that seems to typify the country in general, I would unhesitatingly chose the Carolina Junco as the representative.

This form was named and described by Mr. Brewster in 'The Auk,' for January, 1886, p. 108, and the type locality given as Black Mountain, Buncombe Co., North Carolina. The writer's family has a summer home three miles from Black Mountain, a station on the Southern R. R. eighteen miles east of the city of Asheville, and it is in this locality that much of the bird work which I have done in the state has been carried on. However, there is another region between ninety-five and a hundred miles northwest of Black Mt. where I have seen and studied the Carolina Junco in much greater numbers, and where it is really to be found in multitudes during the breeding season. This locality lies in the county of Watauga, and contains the summer resort of Blowing Rock, which is well known over the East for its magnificent scenery. It is here that the following notes were made, and I doubt whether another spot in the state has its equal for the opportunity of the observation of this form.

The village of Blowing Rock has an altitude of 4000 to 4600 ft. and could rather be termed *on* the mountains than *in*, as it is built on the crest of a very high ridge and the beautiful motor road which connects it with the Southern R. R. at Lenoir, N. C., presents twenty-two miles of

some of the grandest pictures of nature that it has been my good fortune to see. This then, the top of eastern N. A., is the home of the Carolina Junco. It very rarely descends under 3000 ft. and in the vicinity of Black Mt. I have yet to see it below 2800 ft. It is fairly common in that section above the latter altitude, but never comes down into the valleys there, as I have not observed it for twelve years under 2800 ft. Of course its habits during the winter months change, and it doubtless comes down to feed during the heavy snows, but the time of year to which I had reference was the breeding season, and late summer. I have never yet had the opportunity to work in this section during the winter.

It would be hard to estimate the numbers that are to be met with in even a short walk anywhere in this region. They fly up in front of one in every direction and seem to delight in the companionship of their human friends. The sharp call note which resembles the word "tsip" is always recognizable, and every brush pile and thicket resounds with the busy notes. The food of this form consists of various seeds and insects, and is procured on or near the ground. They have a liking for rather dark, thick, bushy places where the ground is soft, and may be seen scratching away among the leaves and earth like so many miniature barn yard fowls, and flitting here and there, showing to advantage the conspicuous white tail feathers. This mark is always evident, whether the birds be in dark or light locations. While feeding they utter a subdued sort of twittering note carried on in a hushed undertone. The song is rather simple in quality, a soft little trill, with a melody in it which grows upon one when heard repeatedly, rather than impressing itself as possessing sweetness at the outset. They also have a three syllabled whistle which is sometimes uttered in flight.

The nest is commenced during the second week in May in normal seasons, and the building usually consumes from ten to twelve days. Full sets of four eggs may be had by the 21st or 23rd of the month. The situation generally chosen is under an overhanging bank where there are many hollows between roots and stones, but there is a wide choice in locations, which are at times very peculiar. An example of these is a nest I examined in July, 1921. It was built in a large tin can at the base of a small white pine on the edge of a tennis court, in the grounds of my father-in-law. The court was frequently in use, but the birds minded us not at all, a game of tennis disturbing them no more than a mountain breeze. This is of course unusual, the great majority considering a sheltering bank good enough for the purpose. The nests are very well made, and in most cases well concealed, but a bird flying out from the edge of a small declivity usually means a nest found without much trouble. The materials used are grasses, bits of bark, rotten wood, moss, rootlets and invariably horse hair, which in many cases is white. The nest is deeply cupped, and when plastered with moss and lined neatly with white horse hair, presents an attractive appearance.

The eggs number four, sometimes five, while I have never found more

than three at the second laying. The second set is laid during the second or third week in July, my latest record being July 20, when I found a nest with three fresh eggs. The eggs average somewhat larger than those of the Slate-colored Junco, but have much the same appearance, being white or greenish white, speckled with dots of reddish brown with a few shell markings of lavender, the dots sometimes assuming the shape of a wreath at the large end. They measure, in a series of several sets, 77×56 , 77×57 , 78×56 , 78×58 mm.

During this past July I collected a very beautiful nest with three eggs. The nest was built at the base of a small pine, and was on the ground, being built up from it in a very substantial manner; the bird had utilized small clods of dirt, grasses and moss to build up the foundation and sides of the nest, the extreme height being just under six inches, and the breadth at the widest point $4\frac{1}{2}$ ins. The inside diameter is 2.5 ins. and the depth of the cup 1.8 ins.; the bottom of the cup is four inches from the ground. The whole is covered with ground moss, and the interior beautifully lined in gray horse hair.

The Carolina Junco betrays very little, if any, excitement while its nest is being investigated. It may sit nearby and utter the sharp call note at times, or may fly quite away, seeming to take very little interest in the proceedings. The readiness with which it breeds near houses is noteworthy. I found a nest this past summer, about two feet from the side of a constantly travelled road, and within twenty-five yards of the porch of a large hotel. They frequently nest in the front yard of my father-in-law's home, one large laurel bush holding the nest of a Chestnut-sided Warbler, and about five feet below and to one side was a nest of this Junco. They seem to be totally indifferent to human habitation, and I will go so far as to say that it looks as if they prefer it in some instances. Certain it is, that I have found far more nests within the confines of the town of Blowing Rock, than I have in the surrounding country about it. They do, of course, breed in the wild ravines and slopes, far from human habitation, but they are a very sociable form, and as I say, seem to enjoy the companionship of man.

I have visited all of the higher peaks of the North Carolina mountains, and the Junco is ever present to welcome the wanderer with its sociable ways and cheery song. I think I will always remember a cold foggy morning on the top of Mt. Mitchell, the highest peak east of the Rockies, 6711 ft. when all the world seemed blotted out in fog, and a cold damp wind blowing from the north, when one of these indefatigable little birds took shape out of the mist and, flying to the top of a huge rock, poured out his happy song. They are typical spirits of these majestic mountains, and I hope I have many good times awaiting me in the future with my friends, the Carolina Juncos.—ALEXANDER SPRUNT, JR., 92 South Bay Street, Charleston, S. C.