

country? What would my own little handbook of the birds of the New York City Region have amounted to if the available data had consisted solely of my own records? What conclusions of importance could Lincoln, Wetmore, Witherby, or ornithologists of the future reach, if they had to depend solely on the birds they banded themselves? Wherever I turn in my ornithological work and almost wherever I have gone into the field, the amateurs have been before me and left on record information of the greatest value and help. I, for one, hope most earnestly that they will carry on, in ever-increasing numbers.

Museum of Comparative Zoölogy, Cambridge, Mass.

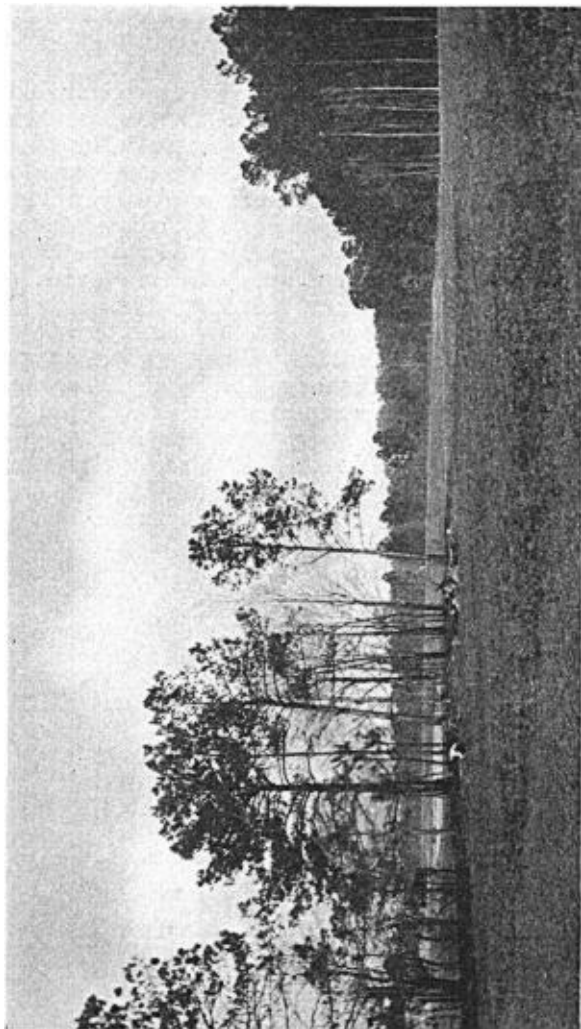
### A THIRD SEASON'S BANDING AT SUMMERVILLE, SOUTH CAROLINA

BY WILLIAM P. WHARTON

DURING January, February, March, and April, 1928, banding operations were again carried on in the same general section as that described in the January, 1928 *Bulletin*. In this period a total of seven hundred and four birds were banded, and twenty-seven certain returns were taken. The new bandings were distributed by species as follows:

Blue Jay ( <i>Cyanocitta c. cristata</i> )	20
Towhee ( <i>Pipilo e. erythrophthalmus</i> )	36
White-eyed Towhee ( <i>Pipilo e. alleni</i> )	15
Cardinal ( <i>Cardinalis c. cardinalis</i> )	25
Vesper Sparrow ( <i>Poæcetes g. gramineus</i> )	7
Savannah Sparrow ( <i>Passerculus sandwichensis savanna</i> )	10
Grasshopper Sparrow ( <i>Ammodramus savannarum australis</i> )	3
White-throated Sparrow ( <i>Zonotrichia albicollis</i> )	145
Chipping Sparrow ( <i>Spizella p. passerina</i> )	313
Field Sparrow ( <i>Spizella p. pusilla</i> )	36
Junco ( <i>Junco h. hyemalis</i> )	28
Bachman's Sparrow ( <i>Peucaea æstivalis bachmani</i> )	1
Song Sparrow ( <i>Melospiza m. melodia</i> )	15
Swamp Sparrow ( <i>Melospiza georgiana</i> )	1
White-eyed Vireo ( <i>Vireo g. griseus</i> )	1
Myrtle Warbler ( <i>Dendroica c. coronata</i> )	3
Pine Warbler ( <i>Dendroica vigorsti</i> )	2
Hooded Warbler ( <i>Wilsonia citrina</i> )	1
Mockingbird ( <i>Mimus p. polyglottus</i> )	4
Catbird ( <i>Dumetella carolinensis</i> )	4
Brown Thrasher ( <i>Toxostoma rufum</i> )	21
Carolina Wren ( <i>Thryothorus l. ludovicianus</i> )	4
Tufted Titmouse ( <i>Bæolophus bicolor</i> )	1
Ruby-crowned Kinglet ( <i>Regulus c. calendula</i> )	4
Hermit Thrush ( <i>Hylocichla guttata pallasii</i> )	4

PLATE V



TYPICAL CHIPPING SPARROW COUNTRY ON THE GOLF COURSE

Figure on Left, Tending Sparrow Trap

The undoubted returns secured during this period numbered twenty-seven, all White-throated Sparrows. Of these twenty-seven, six were of birds banded in 1926. Of these six, three were returns-2, or 42.857 per cent of last season's returns-1. Twenty-one were of birds banded in 1927 (returns-1), 20.192 per cent of the White-throats banded that season.

Twelve Chipping Sparrows, of which six were banded in 1926 and six in 1927, two Towhees, one banded in each of those years, and two Brown Thrashers, also one of each year, were retaken in 1928, some of which may not have been migrating birds. In addition, six Cardinals, two White-eyed Towhees, one Tufted Titmouse, and one Blue Jay banded in previous years were recaptured. The Blue Jay banded by me on March 14, 1926, was found dead about one quarter of a mile from the place of banding on March 6, 1928.

Of the season's results, that of outstanding interest seems to be the large number of return White-throated Sparrows taken. These birds are doubtless winter residents, as shown by the fact that many of them repeated frequently throughout the season whenever they had opportunity. During the seasons of 1926 and 1927, I banded 199 birds of this species. Of these, as mentioned above, 27 returned in 1928, or 13.568%. The tabulated record of these returns is as follows:

<i>Band Number</i>	<i>Banding Date</i>	<i>Returning Date</i>	
44657	Jan. 19, 1926	Feb. 2, 1928	(Return-2)
181105	Feb. 14, 1926	Jan. 3, 1928	
181114	Feb. 26, 1926	Jan. 17, 1928	(Return-2)
181120	Feb. 28, 1926	Apr. 12, 1928	
181124	Mar. 2, 1926	Jan. 17, 1928	(Return-2)
181144	Apr. 13, 1926	Feb. 19, 1928	
183811	Jan. 10, 1927	Mar. 9, 1928	
473787	Jan. 12, 1927	Mar. 7, 1928	
473802	Jan. 25, 1927	Jan. 22, 1928	
473806	Jan. 29, 1927	Jan. 17, 1928	
473807	Jan. 29, 1927	Jan. 17, 1928	
473805	Jan. 29, 1927	Jan. 21, 1928	
473812	Feb. 7, 1927	Jan. 16, 1928	
473813	Feb. 8, 1927	Jan. 20, 1928	
473828	Mar. 11, 1927	Mar. 6, 1928	
473829	Mar. 11, 1927	Mar. 9, 1928	
473834	Mar. 16, 1927	Mar. 5, 1928	
473837	Mar. 19, 1927	Mar. 8, 1928	
473843	Mar. 24, 1927	Jan. 2, 1928	
473846	Mar. 27, 1927	Jan. 9, 1928	
473848	Mar. 29, 1927	Feb. 27, 1928	
473855	Mar. 30, 1927	Mar. 16, 1928	
473879	Apr. 9, 1927	Feb. 16, 1928	
473880	Apr. 9, 1927	Feb. 19, 1928	
473872	Apr. 19, 1927	Apr. 27, 1928	
473875	Apr. 24, 1927	Apr. 13, 1928	
494889	Apr. 26, 1927	Apr. 16, 1928	

Practically without exception, all these birds were taken in localities not more than three hundred feet from where they were originally banded. In my previous article I stated, "Of all the returning White-throats, even those taken early in January, every bird had a fairly bright-colored head, indicating that all the dull-headed birds were those hatched during the summer of 1926." This assumption was not borne out by the experience of 1928. In that year, 10 return birds with bright heads were taken, 4 with medium, and 6 with dull heads. Unfortunately no record was made in the case of the other 7 returns, and, of these, 2 were birds banded in 1926. It is noteworthy, however, that of the four 1926 birds of which record was made, all had bright heads. Thus there seems some probability that bright head-plumage is characteristic of advance in age rather than of sexual maturity.<sup>1</sup> No unusually early head-molt was observed.

Of the other recaptures, those of the Chipping Sparrow were of most interest. Though a few birds of this species nest in the Summerville section, undoubtedly the great majority of the large numbers which are present during the winter, especially in March, are birds which nest considerably farther north. I cannot but feel that the retaken birds of the past two years show a considerable tendency on the part of these birds to return to the same general section for at least a part of the winter. Of the 191 Chippies banded in 1926, 10 were retaken in 1927, and 6 in 1928, of which latter number one was a "return-2" (if it was a migrant); of the 167 banded in 1927, 6 were retaken in 1928. Thus, out of a total of 358 birds of this species banded in 1926 and 1927, 21 were retaken in 1927 and 1928, or approximately 6%. Of these 21 birds, only 4 were taken at any considerable distance from the point of their original capture, and these all within a radius of probably three quarters of a mile. If they had continued to repeat late in the season as individual birds or in pairs, it might have been reasonable to conclude that they were local breeders. Such, however, was not the case. Only 6 of the 21 repeated after March 31st of either year, and only 3 of these after April 10th. Decreasing numbers of Chippies were at Summerville during the remainder of the latter month, and a number of freshly-banded birds repeated up to the 26th, yet none of the returns

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<sup>1</sup>A "bright" head, as the term is used here, is one having clear white stripes with yellow before the eye, and with dark stripes inclined to black. A "dull" one has brown stripes in place of black and with superciliary stripe grayish, while a "medium" coloration is one having these stripes brown posteriorly and often black anteriorly with colors intermingled between. No very definite line could be drawn in all cases.

were with them. The only way in which my belief that most of these birds were winter visitants can be proved correct, is, of course, to have one or more of the birds in question captured at some more northerly point.

Other retaken birds of the 1928 season require little comment, for the reason that, with the exception of the two Towhees, they consisted of birds commonly resident in coastal South Carolina. The two Towhees, both females, were retaken in practically the same spot where they were originally banded, and I am disposed to regard them as genuine returns. Wayne states that the red-eyed Towhee does not breed on the coastal plain but does breed in the mountainous portions of the State. Both these birds appeared to be of the red-eyed type in one characteristic or another. Their recapture apparently indicates the tendency of this species also to return to the same wintering locality.

It is a great disappointment to be unable to report any more returns of the Savannah Sparrow, although a trap was placed in the same spot where the three returns were taken the preceding season. The flock this year using this restricted locality appeared to consist of not more than eight or ten birds, and under these circumstances it was perhaps too much to expect that the luck of 1927 could be equalled or even approached.

At the suggestion of Mr. Whittle, a record was kept of all birds afflicted with parasites, so far as these were noticed. This record shows that twelve carried one or more ticks on their heads, of which the majority were nymphs of *Hæmaphysalis leporis-palustris*, and the others adults of *Ixodes brunneus*. The former were hard-shelled insects of more or less uniform size, probably not exceeding one eighth of an inch in length. The latter were soft-bodied, and varied greatly in size up to a quarter of an inch or more in length. The determinations were kindly made by Charles W. Johnson, of the Boston Society of Natural History, who states that *Hæmaphysalis leporis-palustris* is usually found on rabbits, though the young are often taken on birds, while *Ixodes brunneus* is known only from birds. From one Mockingbird and one Catbird were taken specimens of the biting bird lice (*Mallophaga*).

The foot disease so prevalent among Chipping Sparrows was noted as active on twelve of these birds, on one Field Sparrow, and perhaps on one White-throat.<sup>1</sup> Twenty-three birds showed evidence of having had the disease, and of having recovered

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<sup>1</sup>This appeared as a swollen and inflamed condition at the junction, not at the ends, of the toes.



**BANDED CHIPPING SPARROW LYING IN AUTHOR'S HAND**

Photograph by Edwin A. Mason

from it. Of these all were Chippies with the exception of one Field Sparrow. Two cases of apparent leg deformity were observed, one a White-throat which had its left leg bent into a right angle, the foot showing by the length of the nails that it was little used; the other a Chipping Sparrow, which had its toes drawn together in such a manner that apparently they could not be normally opened.

At the invitation of a neighbor, Mr. John Gadsden, traps were set in his dooryard, about one and a half miles in an air line from my own house, on March 26th. The birds captured there, with the exception of those which were nesting, were taken in a covered cage to my house and released. Thirteen Blue Jays, thirteen Chipping Sparrows, and eleven White-throated Sparrows were thus transported, and, of these, two Jays, five Chipping Sparrows, and four White-throats were retaken at Mr. Gadsden's place in the case of some of them within twenty-four hours. These records seem to indicate a very strong homing instinct in the three species with which the experiment was tried. The White-throats doubtless belonged to a local wintering flock, and as they are not given to roaming, their quick return through a largely timbered country interspersed with house lots is interesting.

This year, as in 1927, Chipping Sparrows showed a reluctance until rather late in the season to come to baited spots. Although no such numbers appeared to be present about January 1st as on January 1, 1927, and seemed to be entirely lacking in the weed-patch where they had been so numerous then, about the middle of January a flock of several hundred was noted on a partly abandoned road near the golf course. This road, originally cut about one hundred feet wide through the timber, had grown over with short grasses, with the exception of a wheel-track in the middle. Here the Chippies seemed to find natural food conditions to their liking, indeed so much so that for many days they refused to pay any attention to my baited spot in the roadway, or to the baited trails which were laid to it.<sup>1</sup> On one occasion the flock was three times driven slowly by the drop trap, feeding as it moved, and yet not one bird came to it. It was not until February 27th that the birds began to come freely, and from that date on they were taken in fair numbers almost daily until April 2d. Of the 207

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<sup>1</sup>The bait used was that compounded for the Northeastern Bird-Banding Association by the Fiske Seed Company of Boston, to which had been added more millet. Later some chaff from a neighboring barn was also used and may have been a factor in finally leading the flock to the bait.

Chippies taken in this locality, the records show that 65 repeated on one or more subsequent days. By far the greater number of these repeats, as above indicated, tarried but a short time, and were gone before April came in. The impression I received from my experiences with this flock was that there was a fairly constant infiltration of newcomers, and an equally constant departure by other birds, so that the flock though remaining a unit until well into April, was made up of very different individuals at the end of the season from those that had composed it at the beginning.

Soon after the discovery of this flock, when returning from an inspection of the bait I had put out to attract it, I with a companion noticed the birds in the grass a short distance ahead of the car. We shut the motor off and coasted to within a few yards of them. On our stopping, the flock fed up very closely around the car, and we then noticed that a considerable number of Pine Warblers accompanied the Chippies, though keeping more or less to themselves and feeding along the edge of the woods, the floor of which had recently been burned over. As we sat watching the birds, many of the warblers flew up to and hovered about the car, in some cases alighting on various portions of it, and in others coming so close to the open windows that it almost seemed as if they wanted to come in, while the Chippies fed on the ground all around and under it. Moving gradually along, the flock finally passed by us. We were unable to account for the apparent attraction which the car seemed to have for the birds. The day was cold, with the thermometer rising from freezing to a maximum of 41°, and with fresh westerly winds. Whether the warmth from the motor and the partial protection afforded from the wind was responsible for the action of the flock, I do not know. Had it been standing any length of time, it might have been reasonable to assume that insects had gathered on it, but under the circumstances this is an unlikely supposition.

In my article in the January, 1928, *Bulletin*, I stated, "Several White-eyed Towhees were taken whose irises were of varying shades of brown or had even a slight hint of red in them, and there is a possibility that there may be some interbreeding between the two forms." During the season of 1928 a not wholly complete record was kept of the color of the irises of the Towhees taken, and also a record of the number of tail feathers on each side having white tips. Unfortunately no record was kept of seven birds. Among the northern or migratory Towhees, approximately twenty-one had red irises, while eight had irises noted as being reddish brown and one a



brown iris. Of the White-eyed Towhees, two had white irises, ten light yellow, and two light brown. Of the northern Towhees, twenty-one had white on three outer tail feathers, and seven had it on four, while of the White-eyed, three had white on two outer feathers, while ten had white on three. Probably these last as a rule had smaller white spots on the third feathers than had the Red-eyed having a similar number of feathers with white tips. Thus it would appear that the number of white-tipped tail feathers does not differentiate the two forms. Probably the eye is a safer character to follow, though even here the two may come close together in possessing a brown iris. In two or three cases of this kind I found it difficult to name the birds in question. Whether inter-breeding actually occurs can perhaps be determined only by trapping resident birds after all the migrants have departed for their northern breeding grounds. On account of the usual date of my departure, I have not been able to do this.

The trapping outfit employed consisted of two self-adjusting sparrow-traps on the Government model, two auto-trip shelf traps, one pull-string drop trap, and one Higgins "Top Door Duplex Water-Drip Trap." The water trap made possible the capture of several new species, especially the warblers and the kinglet, but the number of birds taken by it was small. This result was probably due in large part to the prevalence of frequent and heavy rains during February and March and part of April. The territory covered was in general the same as in the two preceding seasons, but a number of new stations were established, especially in the latter part of the season. As heretofore, when a locality had been trapped until repeats became troublesome and few if any new birds were taken, the traps were moved to other locations.

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#### NOTICE

Mr. Wilbur K. Butts, 206 Cascadilla Avenue, Ithaca, New York, is using colored celluloid bands in studying the local movements of Chickadees and Nuthatches. By this means individuals may be readily recognized whenever seen in the field. Mr. Butts is desirous of learning to what extent others have used either colored enameled or celluloid bands, and the success they have had. He would like to get in touch with any one who has used them. He also wishes to obtain any information any one may have regarding the migration, local movements, and group or flocking habits of Chickadees and White-breasted Nuthatches. Mr. Butts would be glad to send samples of celluloid bands and directions for making them to any one interested.