

NOTES ON BANDING AT  
GROTON, MASSACHUSETTS, 1922-1928

By WILLIAM P. WHARTON

DURING the years 1922-1928 inclusive, the writer has banded at Groton, Massachusetts, 1,980 birds of 60 species. The work was carried on in a very irregular and desultory manner through the first three and one half years, as shown by the fact that but 246 birds were banded in that time. It was not until August 21, 1925, that banding was taken up systematically. The following table shows in the first column the number of each species banded up to January 1, 1928, (which are the only birds from which returns could have been expected during the period mentioned), in the second column the numbers banded during 1928, and in the third the totals for the entire period:—

	(Total 1922-1927)	(Total for 1928)	(Total 1922-1928)
*Song Sparrow . . . . .	473	218	691
Savannah Sparrow . . . . .	49	141	190
*Chipping Sparrow . . . . .	90	81	171
*Tree Sparrow . . . . .	93	53	146
White-throated Sparrow . . . . .	70	68	138
Junco . . . . .	50	47	97
*Purple Finch . . . . .	53	18	71
Fox Sparrow . . . . .	53	16	69
Barn Swallow . . . . .	25	25	50
*Robin . . . . .	21	18	39
White-crowned Sparrow . . . . .	12	25	37
Phoebe . . . . .	23	11	34
Catbird . . . . .	16	18	34
*Chickadee . . . . .	20	14	34
Golden-crowned Kinglet . . . . .	3	12	15
House Wren . . . . .	5	8	13
*Vesper Sparrow . . . . .	4	8	12
Bluebird . . . . .	11	..	11
Ruby-crowned Kinglet . . . . .	1	9	10
Black-poll Warbler . . . . .	..	9	9
Goldfinch . . . . .	2	6	8
Swamp Sparrow . . . . .	8	..	8
Olive-backed Thrush . . . . .	6	1	7
Hermit Thrush . . . . .	4	3	7
Least Flycatcher . . . . .	4	2	6
Cowbird . . . . .	4	2	6
Myrtle Warbler . . . . .	..	5	5
Redstart . . . . .	1	4	5
Maryland Yellow-throat . . . . .	1	4	5
Towhee . . . . .	2	2	4
White-breasted Nuthatch . . . . .	1	2	3
Yellow Warbler . . . . .	2	1	3
Field Sparrow . . . . .	2	1	3

	(Total 1922-1927)	(Total for 1928)	(Total 1922-1928)
Cedar Waxwing . . . . .	..	3	3
Blue Jay . . . . .	1	1	2
Black and White Warbler . . . . .	1	1	2
Lincoln's Sparrow . . . . .	2	..	2
Chestnut-sided Warbler . . . . .	..	2	2
Tree Swallow . . . . .	..	2	2
Bobolink . . . . .	..	2	2
Whip-poor-will . . . . .	..	2	2
Baltimore Oriole . . . . .	..	2	2
Oven-bird . . . . .	..	2	2
Black-throated Blue Warbler . . . . .	..	2	2
Dickcissel . . . . .	1	..	1
Chimney Swift . . . . .	1	..	1
Flicker . . . . .	1	..	1
Indigo Bunting . . . . .	1	..	1
Cape May Warbler . . . . .	1	..	1
Wilson's Warbler . . . . .	1	..	1
Nashville Warbler . . . . .	1	..	1
Pine Siskin . . . . .	1	..	1
Wood Thrush . . . . .	1	..	1
Canada Warbler . . . . .	..	1	1
Yellow Palm Warbler . . . . .	..	1	1
Black-throated Green Warbler . . . . .	..	1	1
Pipit . . . . .	..	1	1
Bronzed Grackle . . . . .	..	1	1
Northern Parula Warbler . . . . .	..	1	1
Pine Warbler . . . . .	1	..	1
Totals . . . . .	1,123	857	1,980

Returns were taken only of the starred species in the above list. <sup>1</sup>

In figuring the percentages in each case, the calculation is, of course, based on the total number of individuals banded up to January 1, 1928, only, no trapping of winter birds having been done after that date until the following fall.

The following table shows in detail the records of all returning Song Sparrows:

Band Number	Prob. Age	Date Banded	Returning Dates			1928
			1925	1926	1927	
54634	Ad.	Sept. 27, 1924	Apr. 28			
54639 <sup>2</sup>		Sept. 28, 1924		Apr. 21		
54646		Sept. 29, 1924	Apr. 28	May 7		(Ret-2)
54663		Oct. 12, 1924		May 9	June 2	(Ret-2)
54668		Oct. 18, 1924	Apr. 28	May 27	June 2	June 4 (Ret-4) <sup>3</sup>
12139		Aug. 23, 1925		May 4		
12156		Sept. 1, 1925		Sept. 20		
80005	Ad.	May 8, 1926			Aug. 2	
181174	Ad.	June 3, 1926			June 3	June 7 (Ret-2)
181191	Ad.	Sept. 4, 1926			Aug. 18	

<sup>1</sup> A return Catbird and House Wren were taken in the spring of 1929, thus adding two species to those of which returns have been taken at this station.

<sup>2</sup> Found dead a half to three fourths mile from place of banding.

<sup>3</sup> Taken as a return-5 on May 28, 1929.

183722	Ad. Sept. 19, 1926	Aug. 10	
183730	Ad. Sept. 24, 1926	May 13	
183760	Oct. 7, 1926	Aug. 24	June 12 (Ret-2)
90856A	Juv. July 28, 1927		Aug. 2
90868A	Juv. July 29, 1927		May 23
90869A	Juv. July 29, 1927		June 5
92073A	Ad. Aug. 6, 1927		Aug. 1
7859B	Juv. Aug. 31, 1927		Aug. 20
7886B	Juv. Sept. 12, 1927		May 17

These returns of Song Sparrows, 19 in number, are but 4.017 percent of the total number of the species banded during the years 1922-1927. It will be observed that after 1925 all such returns were taken after May 1st in each year. The reason for the lateness of these dates is to be found in the fact that I spent the greater part of each of these winters in the South, and did not resume banding at Groton until after the date named. It is not improbable that the small percentage of returns is partly attributable to the fact that no traps were ready for the birds on their arrival, and that the latter had scattered to their nesting-grounds before trapping operations had begun. Another reason may be found in the probable fact that a large proportion of the birds of this species were not local nesters, but true migrants. Judging from the general failure of banders to take returns of migrants, it would not be surprising if such birds did not again appear at my station. My failure to carry on banding operations with regularity during the early years of the period under consideration was undoubtedly another factor in the small percentage of returns then taken.

It is worthy of mention that in the banding area, in proximity to my house, there is a young orchard in which either millet has been sown or weeds let grow after the end of June, and that this offers particularly favorable conditions for the flocking of Song Sparrows as well as some other species in the late summer and fall. This orchard was not trapped, however, until the summer of 1927. The great majority of the birds which assemble there during the latter part of July and the month of August are juveniles. During September, following the molt, it becomes impossible for me to tell the ages of freshly captured birds, but it is worth noting that almost all of those banded during July and the first twenty days of August of the years 1927 and 1928 stopped repeating after September 1st, although many repeated freely up to that time. These were the only years in which banding of juvenile Song Sparrows was followed up throughout the summer months. To be specific, of a total of 104 birds of this species banded in 1927 up to August 21st, only four repeated after September 1st, and one of these was banded

before leaving the nest as late as August 9th, and repeated but once—on September 7th. In 1928, out of a total of 88 birds banded up to August 21st, but four repeated after September 1st, and again one of these was a late nestling (banded August 14th). The natural inference is that the locally bred young birds move away towards the end of summer, and that birds from other, presumably more northerly sections, form the bulk of those which are banded later in the season. The fact that five juveniles banded during the summer of 1927 were taken as returns the following year, three of them during the breeding season, seems to indicate a tendency of the species in this section to return for its first nesting season to the general vicinity of where it was hatched.

A partial record of the molt of this species was kept in 1927 and 1928—in the case of 62 birds in 1927, and 73 birds in 1928. This record indicates that molting begins during the second ten days in August in some individuals of the local birds, and is common among them the latter part of the month. It seems to be finished in these local birds before October 1st, except for a few from very late broods. With the later banded, probably migrating, birds, on the other hand, the molt is often unfinished during the second ten days of October. These birds did not repeat much, and would seem, therefore, to have been on the move. Of the five birds of which anything like complete individual records are available, the time from the beginning to the end of the molt is indicated as covering roughly a period of between forty and forty-five days.

The table of returning Tree Sparrows follows:

Band Number	Date Banded	Returning Dates				
		1923	1925	1926	1927	1928
22107	Apr. 1, 1922	Feb. 25				
22106	Apr. 1, 1922	Mar. 9				
26978 <sup>4</sup>	Feb. 25, 1923					
54698	Nov. 19, 1924		Nov. 9 (Nov. 17) <sup>5</sup>	Apr. 7		
12103	Dec. 15, 1924				Dec. 15	Dec. 11 (Ret-2)
12111	Dec. 21, 1924		Nov. 20			
12114	Dec. 23, 1924		Nov. 30 (Dec. 1)		Dec. 7	Dec. 8 (Ret-3)
12117	Apr. 6, 1925		Nov. 5	May 2		(Ret-2)
42778A	Nov. 21, 1925			Dec. 6		
42786A	Nov. 27, 1925					
42790A	Dec. 1, 1925				Dec. 11 (Dec. 18, 26)	Dec. 7
70211A	Dec. 7, 1926				Dec. 17 (Dec. 18, 19, 23)	Nov. 29 (Ret-2) (Nov. 30, Dec. 10, 13)
18591B	Dec. 2, 1927					Nov. 15 (Nov. 17, 18, 22, 23, 24)
18592B	Dec. 4, 1927					Dec. 10 (Dec. 12)

<sup>4</sup> Found dead at Phippsburg, Maine.

<sup>5</sup> Dates in parentheses are repeats.

18596B Dec. 7, 1927  
 18599B Dec. 7, 1927  
 18602B Dec. 10, 1927  
 18606B Dec. 15, 1927  
 18617B Dec. 20, 1927

Dec. 10  
 (Dec. 24)  
 Dec. 8  
 (Dec. 9, 11, 12)  
 Nov. 24  
 (Nov. 25, 27, 30,  
 Dec. 21)  
 Nov. 30  
 (Dec. 8, 10, 20)  
 Dec. 10  
 (Dec. 13)

The returns given in the above table strongly confirm the well-known returning habit of this species, the percentage being 20.43% of birds banded up to January 1, 1928, provided the single recovery is included in the total of returns. The impression I have received from handling these birds is that the entire wintering flock does not arrive in a body, but that at least some of the individuals composing it appear in company with others of the same species, which, judging by their failure to repeat for any considerable time after their first capture, probably pass on to other wintering-grounds. The bulk of the locally wintering birds seem to arrive during the last ten days of November or the first half of December, and probably remain about my feeding station during the winter and early spring. At any rate they repeat fairly frequently up to the usual time of my departure, and, as indicated in the preceding table, I took one return from 1925 as late as May 2, 1926, after an absence from home since December 24th preceding.<sup>6</sup> Thus the group habit seems to hold for the wintering birds, but there is some doubt in my mind as to whether these birds travel as a unit.

Returns of all other species, totaling only nine individuals (provided three Chickadees are regarded as returns) seem to bear out, except in the case of the Chickadees, the already demonstrated tendency of the species concerned to return to their nesting-grounds. They are distributed by species as follows:

Chipping Sparrow . . . . .	37		
Chickadee . . . . .	3	Robin . . . . .	1
Vesper Sparrow . . . . .	1	Purple Finch . . . . .	1 <sup>8</sup>

Of the three Chipping Sparrows, one is a new return-3, having been banded as an adult on May 14, 1926, and recaptured on May 15, 1927, May 10, 1928, and May 6, 1929. The other two were banded in September and October, 1927, their age

<sup>6</sup> Another bird of this species, banded November 26, 1928, repeated, after my return from the South, on April 27, 1929.

<sup>7</sup> Twelve returns of this species were taken in the spring of 1929, beginning April 24th.

<sup>8</sup> Seven returns of this species were taken in the spring of 1929.

and sex being then unknown, and were taken the following May, apparently as breeding males.

The case of the Vesper Sparrow is interesting, inasmuch as it was the only bird of this species banded as an adult before January, 1928. The date of banding was May 20, 1926, and the bird was retaken July 17, 1928. The returning Robin presents a similar case of being the only adult bird of its species to be banded up to the time of its return. It was originally caught in an automobile, under the shed where it was nesting, on June 13, 1927, and was retaken in the water-drip trap on October 22, 1928. There seems good reason to suppose that this Robin had nested in the same place during the preceding spring. The single Purple Finch which returned was banded as a female or young male on April 29, 1925, and was retaken as a rosy male May 12, 1926. Since Purple Finches nest in the planted evergreens near my house, it is not improbable that this bird was a local breeder. Of the three Chickadees, all were banded in the fall, and, except for those which repeated in the early winter, only one was retaken before the following fall. The single exception was retaken on May 23d following the year of its banding,—a possible indication of nearby nesting,—but was not again captured until the following November. Whether birds of this species can be considered returns I must leave to better qualified authorities than I on this subject.

From May 11 to June 10, 1928, forty-one Chipping Sparrows were banded in the young orchard, where the trap was set for the first time in spring. Of these but six repeated after June 10th. This would seem to indicate that most of the others did not nest in the general vicinity for, if they had, it is reasonable to suppose they would have joined the flock which gathers in the same place in September, and that at least a few would have been taken with the twenty-nine which were newly banded during that month, and the month of October, 1928. Such was not the case. In this connection, however, mention should be made of the fact that, of the three returns taken in the spring of 1928, on May 10th, 12th, and 21st, and naturally assumed to be locally breeding birds, not one repeated during the balance of the year. Did they, as adult birds, pursue a different course after the breeding season from that taken as young birds, and from that taken by their own offspring? This seems possible, for the fall-banded birds were probably largely birds of the year raised in the immediate vicinity since they were predominantly determined as juveniles for as long as these could be distinguished from adults. They did not repeat nearly as freely as

the young Song Sparrows, but five out of the twenty-nine having been taken a second time. This statement also holds good for the fall of 1927, when, out of the sixty-seven Chippies banded, only twelve repeated.

The two-chamber open-top water-drip trap, which has been operated only since the late summer of 1927, has made possible the taking of Warblers and Kinglets in moderate numbers, some Catbirds and Thrushes and occasional Wrens, Robins, and Orioles. As indicated in the table at the beginning of this article, nine Warblers, four Kinglets, and eleven Thrushes were banded in 1927; all of these were captured in the water trap during the fall. In 1928, during both spring and fall, thirty-four Warblers, twenty-one Kinglets, three Thrushes, and two Orioles were banded, all of which, except two Ovenbirds, were taken in the water trap. The latter is situated within a plantation which I made sixteen years ago, modelling it after the so-called "shelterwood" described in the book on methods of attracting birds used by Baron Hans von Berlepsch at his estate near Eisenach, Germany. This plantation, placed as it is near groups of large oaks and maples and clumps of evergreens and open spaces of lawn, which together form a house site in the midst of orchards and open fields, has had a marked effect in attracting thicket-inhabiting birds, especially in migration. The location of the water trap within it is doubtless the reason for such success as has attended my efforts to trap the species mentioned.<sup>9</sup>

To the proximity of open fields and wet meadows on the farm is attributable my success in banding so many Savannah Sparrows in 1928. A trap was placed on the edge of a cornfield from which the crop had been removed for the silo, near a narrow ribbon of asparagus bed and by the edge of unmown and somewhat brushy wet lands. No traps had been set there in previous years. Here the Savannahs came in numbers during the fall migration, and with them some Song Sparrows and the less easily trapped Vespers. Here too was taken the only Pipit to be banded.

Owing to lack of available time to operate a pull-string trap, none has been used in my banding work at Groton. Otherwise the trapping outfit used has been the same as that used at Summerville, South Carolina, during the same years, consisting for the past two of two automatic sparrow traps and two auto-trip shelf traps, besides the drip trap above

---

<sup>9</sup> During the spring of 1929, thirty Warblers were taken in this trap, five Catbirds, two Least Flycatchers, two White-throated Sparrows, and one each Song Sparrow, Hermit Thrush, Chickadee, and House Wren.

referred to. While the great majority of birds have been trapped, some nestlings or very young fledglings have been banded, the total number in 1928 having been 100. Those species which have been thus banded but never trapped are—Flicker, Whip-poor-will, Phoebe, <sup>10</sup>Least Flycatcher, Bronzed Grackle, Bobolink, Barn Swallow, Tree Swallow, Cedar Waxwing, and Bluebird.

Groton, Massachusetts.

## PLIERS FOR BIRD BANDING

By FREDERIC H. KENNARD

IT is conceded, I think, by careful bird-banders, that the final adjustment of the band upon the bird's tarsus must be made with pliers of some sort, in order to bring the band into a ring, with its two edges close together, and as evenly as possible; not only to prevent any unnecessary chafing upon the bird's leg, but also to reduce to a minimum the possibility of its getting entangled later, with hairs, string, or grasses, in their nests or elsewhere, as the case may be.

There are a number of cases known of birds having been entangled by carelessly adjusted bands, and there are probably hundreds of such cases of which we never can hear.

I know of one party of bird-banders (friends of mine), who caught and banded several thousand young terns, and discovered later a number of them caught in the beach grass by their carelessly adjusted bands, and doomed, unless providentially discovered, to struggle there until they got loose or died. This was the next day after the banding, and these were the first birds that happened to get caught, and happened to be discovered. How many other birds may later have been caught, and never discovered! The bands on these birds' legs, in the hurry to band as many as possible, had been merely pinched together with the fingers. A little care, and possibly, a little more time spent with pliers, in properly adjusting these bands, would have prevented the trouble, and undoubtedly saved numbers of these terns from an untimely and unnecessary death.

Personally, I have heretofore always used a pair of light 4-inch flat-nosed pliers, with which to make the final adjustments, after first pinching the band almost together with my fingers. This was often a somewhat lengthy process, particu-

---

<sup>10</sup> Two adults of this species, however, were secured by the drip trap in May, 1929.