

RETURNS OF WINTERING BIRDS TO SUMMERVILLE, SOUTH CAROLINA

By WILLIAM P. WHARTON

INCREASING numbers of returns-W have characterized my fourth and fifth winter seasons at Summerville. Those of undoubted validity are of the White-throated Sparrow (*Zonotrichia albicollis*), the Towhee (Red-eyed) (*Pipilo e. erythro-phthalmus*), the Savannah Sparrow (*Passerculus sandwichensis savanna*), and the Hermit Thrush (*Hylocichla guttata pallasi*). Forty-two returns of these species were taken in 1929 and forty-eight in 1930, as compared with twenty-nine in 1928. If to these figures be added retakings of the Chipping Sparrow (*Spizella p. passerina*), which, for reasons stated in my article in the January, 1929, number of the *Bulletin*, Vol. V, No. 1, pp. 26 and 27, and to be elaborated further on in this article, I am disposed to regard as overwhelmingly and perhaps wholly true returns, these totals will be raised to ninety-five and one hundred and twenty-two respectively.

The following table shows all returns of White-throated Sparrows taken in the two years under consideration, together with the previous history of each bird so far as it is known. It is worth mentioning that up to the present time not a single one of the 786 White-throats banded in the five winters from 1926 to 1930 inclusive has been reported from elsewhere:—

TABLE I

Band Number	Date Banded 1926	Returning Dates			
		1927	1928	1929	1930
44648	Jan. 11			Feb. 9	
181124	Mar. 2	Feb. 3	Jan. 17	Jan. 18	Jan. 17
	1927				
183807	Jan. 5			Jan. 29	Jan. 29
183811	Jan. 10		Mar. 9	Mar. 7	
473812	Feb. 7		Jan. 16	Jan. 15	
473833	Mar. 15				Jan. 30
473834	Mar. 16		Mar. 5		Feb. 4
473842	Mar. 21				Mar. 8
473846	Mar. 27		Jan. 9	Jan. 7	
494889	Apr. 26		Apr. 16	Feb. 23	

Band Number	Date Banded	Returning Dates			
		1927	1929	1929	1930
	1928				
494954	Jan. 2			Jan. 7	
494961	Jan. 3			Jan. 14	
494963	Jan. 3			Jan. 10	
494964	Jan. 3			Jan. 10	
494970	Jan. 4			Apr. 14	
494975	Jan. 7			Apr. 17	
494978	Jan. 7			Apr. 15	
494979	Jan. 8			Jan. 10	
494981	Jan. 10			Apr. 15	
494984	Jan. 14			Feb. 3 (dead)	
494985	Jan. 16			Jan. 24	Jan. 31
609202	Jan. 16			Jan. 14	
609207	Jan. 21			Feb. 12	Jan. 19
609211	Jan. 22			Feb. 18	
609213	Jan. 23			Feb. 12	
609216	Jan. 24			Feb. 2	Mar. 11
609217	Jan. 28			Jan. 30	Jan. 21
609220	Jan. 28			Jan. 30	Jan. 19
609223	Jan. 28			Jan. 31	Jan. 20
609256	Mar. 4			Feb. 25	
609257	Mar. 5			Feb. 23	
609262	Mar. 7			Mar. 6	
609269	Mar. 12				Jan. 19
609270	Mar. 15				Feb. 5
609271	Mar. 15			Jan. 24	
609273	Mar. 16			Feb. 5	
609278	Mar. 21				Mar. 6
609281	Mar. 22			Jan. 24	
609283	Mar. 22			Jan. 27	
609292	Apr. 5			Apr. 6	
634005	Apr. 17				Jan. 15
634018	Apr. 25			Apr. 12	
	1929				
A120363	Feb. 24				Jan. 1
A120422	Apr. 10				Jan. 2
A120453	Apr. 16				Jan. 4
A120429	Apr. 12				Jan. 5
A120333	Feb. 11				Jan. 15
A106089	Jan. 14				Jan. 16
A120329	Feb. 9				Jan. 18
A106078	Jan. 9				Jan. 18
A120366	Feb. 15				Jan. 30
A120337	Feb. 11				Feb. 4
A120353	Feb. 19				Feb. 5
A120336	Feb. 11				Feb. 8
A120367	Feb. 25				Feb. 8
A106084	Jan. 12				Feb. 10
A120413	Mar. 29				Feb. 27
A120412	Mar. 28				Feb. 27
A120409	Mar. 29				Mar. 3
A120376	Mar. 8				Mar. 4
A120387	Mar. 16				Mar. 24
A120327	Feb. 8				Apr. 22

Of the thirty-five birds returning in 1929, two were banded in 1926, five were banded in 1927, and twenty-eight were banded in 1928. Of the thirty-five returning in 1930, one had been banded in 1926 (a return-4), four in 1927, ten in 1928, and twenty in 1929. Thus in 1929, 77.14 per cent of the total returns taken were birds banded the previous year, while in 1930 such birds were but 57.14 per cent of the total. In 1928 the percentage had been 77.77 per cent.

The following table shows numbers of the birds of this species banded each year which returned in subsequent years, with percentages calculated on the basis of the number originally banded. The starred figures are percentages of survival as indicated by these returns. They differ from the percentages of returns because birds which failed to be taken as returns for one or more years after banding, but which ultimately were retaken, are included as survivors during the intervening years:—

TABLE II

Year Banded	Number Banded	Returning in				Total Number of Individuals Returning Out of Original Number Banded	
		1927	1928	1929	1930		
1926	94	*11.70% 7 7.44%	*7.45% 6 6.38%	*2.13% 2 2.13%	*1.06% 1 1.06%	11	11.70%
1927	104		*23.08% 21 20.29%	*6.73% 5 4.81%	*3.85% 4 3.85%	24	23.08%
1928	145			*22.06% 28 19.31%	*6.89% 10 6.89%	32	22.06%
1929	169				20 11.80%	20	11.80%
1930	274						

It will be noticed that the percentages of survival of the second year after banding, during the three years when such figures are available, show a rather remarkable uniformity, ranging between 6.75 per cent and 7.50 per cent.

The following table shows returns of Chipping Sparrows taken in 1929 and 1930, together with the previous history of each bird, and in one case a bit of subsequent history:

TABLE III
Returning Dates

Band Number	Date Banded	<i>Returning Dates</i>			
		1927	1928	1929	1930
A57059	Mar. 26		Mar. 30	Feb. 28	Mar. 18
A57085	Mar. 28			Jan. 23	
A58757	Apr. 13			Mar. 3	
	1927				
A70250	Mar. 5			Jan. 23	
A83360	Mar. 9			Jan. 29	
A83361	Mar. 8			Jan. 29	
A88051	Mar. 29			Jan. 15	
A88088	Apr. 7				Feb. 20
	1928				
B18633	Jan. 15			Feb. 28	Feb. 27
B18637	Jan. 17			Jan. 23	Jan. 26
B18680	Feb. 11				Apr. 10
B18692	Feb. 27			Mar. 2	
B18696	Feb. 27			Jan. 28	
B18700	Feb. 28			Jan. 29	
B23005	Feb. 28				Feb. 21
B23014	Mar. 1			Apr. 5	
B23016	Mar. 1			Mar. 2	Mar. 1
B23017	Mar. 2			Mar. 2	
B23033	Mar. 7			Jan. 28	
B23035	Mar. 7				Feb. 21
B23057	Mar. 8				Feb. 21
B23044	Mar. 7			Apr. 2	Mar. 18
B23055	Mar. 8			Mar. 3	Feb. 23
B23072	Mar. 14			Feb. 23	
B23093	Mar. 19				Mar. 23
B23074	Mar. 14			Apr. 9	
B23079	Mar. 18				Feb. 20
B23099	Mar. 19				Feb. 24
B36003	Mar. 19			Mar. 26	
B36007	Mar. 19			Jan. 28	Feb. 16
B36017	Mar. 19			Mar. 11	Mar. 16
B36023	Mar. 19				Feb. 28
B36025	Mar. 19			Jan. 28	
B36026	Mar. 19			Mar. 2	
B36031	Mar. 19			Mar. 3	Mar. 1
B36058	Mar. 20			Mar. 19	
B36065	Mar. 22			Jan. 29	
B36067	Mar. 22				Feb. 25
B36083	Mar. 22			Mar. 3	Mar. 7
B36087	Mar. 22			Mar. 16	
B36089	Mar. 22			Mar. 2	Mar. 18
B36093	Mar. 22			Jan. 15	
B37003	Mar. 23			Mar. 29	
B37004	Mar. 23			Feb. 25	
B37010	Mar. 23			Jan. 23	
B37007	Mar. 23			Jan. 23	
B37015	Mar. 23			Mar. 1	Feb. 18
B37017	Mar. 23			Mar. 1	
B37020	Mar. 23				Mar. 18

Band Number	Date Banded	Returning Dates			
		1927	1928	1929	1930
	1928				
B37038	Mar. 27			Mar. 18	Mar. 14
B37042	Mar. 28			Mar. 17	Mar. 27
B37044	Mar. 28			Mar. 11	
B37051	Mar. 28			Apr. 11	
B37056	Mar. 28			Mar. 16	
B37060	Mar. 28			Mar. 11	
B37061	Mar. 28				Mar. 15 (killed)
B37079	Apr. 1			Mar. 9	Feb. 28
B37080	Apr. 1			Feb. 13	Feb. 27
B37081	Apr. 1			Feb. 14	Feb. 27
B37085 ¹	Apr. 1			Mar. 9	Mar. 20
B37503	Apr. 4			Mar. 3	Feb. 25
B37513	Apr. 9			Mar. 31	Feb. 18
B37523	Apr. 12			Mar. 7	
B37524	Apr. 12			Mar. 25	
B37537	Apr. 14			Mar. 9	
	1929				
B73535	Feb. 18				Feb. 10
B73541	Feb. 23				Feb. 11
B73533	Feb. 17				Feb. 11
B66986	Jan. 28				Feb. 11 (dead)
B66987	Jan. 28				Feb. 11
B73676	Mar. 6				Feb. 16
B73540	Feb. 28				Feb. 16
B66985	Jan. 28				Feb. 16
B73556	Feb. 25				Feb. 20
37874	Apr. 8				Feb. 21
B73593	Feb. 28				Feb. 21
37857	Mar. 31				Feb. 22
B73678	Mar. 6				Feb. 25
B66975	Jan. 23				Feb. 25 (dead)
B73571	Feb. 25				Feb. 26
37784	Mar. 17				Feb. 27
B73618	Mar. 2				Feb. 27
B73547	Feb. 25				Feb. 28
37849	Mar. 29				Mar. 1
B73566	Feb. 25				Mar. 1
37877	Apr. 10				Mar. 1
37753	Mar. 9				Mar. 2
37851	Mar. 29				Mar. 2
B73525	Feb. 13				Mar. 2
B73680	Mar. 6				Mar. 2
B66991	Mar. 28				Mar. 5
37879	Apr. 11				Mar. 1
B73598	Mar. 1				Mar. 2
B73552	Feb. 25				Mar. 12
37793	Mar. 17				Mar. 12
B73550	Feb. 25				Mar. 13
B73592	Feb. 28				Mar. 18
37831	Mar. 2				Mar. 18

¹Found dead at St. Johnsbury, Vermont, May 27, 1930.

Band Number	Date Banded	Returning Dates			
		1927	1928	1929	1930
	1929				
37801	Mar. 18				Mar. 17
B73647	Mar. 3				Mar. 20
37861	Apr. 2				Mar. 23
37807	Mar. 19				Mar. 26
B66996	Jan. 29				Mar. 26
37786	Mar. 17				Mar. 27
37843	Mar. 29				Mar. 27
37842	Mar. 29				Mar. 31
B73693	Mar. 9				Mar. 31

The taking of B37085 at St. Johnsbury, Vermont, on May 27, 1930, after this bird had returned two successive seasons subsequent to banding, is an important piece of evidence tending to support my belief expressed in a previous article that the flocks of Chipping Sparrows found at Summerville in winter and in early spring are practically wholly winter residents in the South. Mr. Alexander Sprunt, of the Charleston Museum, tells me that he has never found this species nesting in the coastal plain section of South Carolina. It is on record, however, that Arthur T. Wayne found one nest of the Chipping Sparrow in his long experience in the "low country" in this state, and found parents feeding young in another instance. In support of Wayne's observations, I had an experience of my own on April 27, 1930. While walking across the golf course I noticed two birds of this species, probably mated, and saw one gather dried rootlets from an upturned sod and fly with them to a near-by pine tree. At the time I noted that neither bird was banded. Unable further to investigate, I notified a resident of Summerville who is a keen bird-student, and subsequently she saw the birds feeding young in the nest, and confirmed my observation that neither was banded. I may remark parenthetically that although I saw moderate flocks of Chipping Sparrows on the course a few days prior to my departure, I could distinguish none which carried bands. This was of interest in that I had banded considerable numbers in this section up to April 14th.² From the foregoing facts and observations I am strongly inclined to believe that the birds wintering in Summerville have probably practically all left by May 1st, and that birds from farther south are the later

²Information more recently received from a practicing doctor in Sumerville, who as a young man about twenty years ago made a collection of birds' eggs and nests, indicates that the Chipping Sparrows nested there at that time occasionally. He tells me that he remembers at least three nests which came under his observation during the few years he was active in collecting.

migrants and supply from their ranks, before passing farther north, such local nesters as may be found in that region later in the spring. This belief is borne out by the practical disappearance of this species during the last days of April from the feeding-stations in the residential sections of the town, where it has been plentifully represented during the winter and early spring months, which I am assured by competent observers is the case. It is further borne out by the progressive decrease of repeats taken during April. Thus of the fifty-three returns taken in 1929, nine repeated after March 31st, and only four after April 10th. (I left Summerville on April 20th of that year.) Of the seventy-three returns taken in 1930, thirty-three repeated after March 31st, but only seven after April 20th. (I left Summerville on April 27th in 1930.) Of three hundred and twenty-three new banded birds in 1929, twenty-eight repeated after March 31st, and fourteen after April 10th. Of two hundred and fifty-five banded in 1930, forty-two repeated after March 31st, and only fourteen after April 20th. Some of this falling off may have been due to the fact that the birds did not come as freely to the bait after warm weather set in, but to any careful observer the marked diminution in the numbers of the species present would appear to have been the chief reason. The following table shows the repeats of newly banded Chipping Sparrows by months in 1929 and 1930:

TABLE IV

Month	Total Number Banded	Total Number Repeating	1929		Number That Did Not Repeat	
			Number Repeating After March 31	Number Repeating After April 20		
January	37	13	0	0	24	64.86%
February	73	46	3	2	27	37.00%
March	196	80	19	10	117	59.28%
April	17	6	..	2	11	64.70%
<i>Totals</i>	<i>323</i>	<i>145</i>	<i>22</i>	<i>14</i>	<i>179</i>	<i>55.42%</i>
			1930			
January	2	0	0	0	2	100.00%
February	34	20	8	1	14	41.17%
March	141	80	34	6	61	43.26%
April	78	31	..	6	47	60.25%
<i>Totals</i>	<i>255</i>	<i>131</i>	<i>42</i>	<i>13</i>	<i>124</i>	<i>48.63%</i>

The gradual increase in percentages of non-repeating birds in those banded in February, March, and April is what might

be expected from the gradually increasing rapidity of the migratory movement during those months. The large percentage of non-repeaters in January-banded birds is less easy to account for, but may be due to the difficulty in trapping this species during that month, as indicated by the small numbers banded.

Table V shows returning and survival ratios of Chipping Sparrows for the whole five-year period of my banding operations at Summerville, being constructed exactly like that giving similar data regarding White-throats (Table II). (Starred figures show survival ratios.) In comparison with the latter, it will be noted that the percentages average considerably lower.

TABLE V

Year Banded	Number Banded	Returning in				Total Number of Individuals Returning Out of Original Number Banded	
		1927	1928	1929	1930		
1926	191	*8.09% 10 5.23%	*4.18% 6 *3.14%	*1.57% 3 1.57%	*0.523% 1 0.523%	17	8.9%
1927	167		*5.98% 6 3.59%	*2.39% 4 2.39%	0	10	5.98%
1928	313			*18.21% 46 14.7%	*9.58% 30 9.58%	57	18.21%
1929	232				*18.10% 42 18.10%	42	18.10%
1930	255						

Table VI gives the history of the Towhees returning in the two years under consideration. A striking feature of this record is the fact that of the eight returns taken in 1929, not one returned in 1930, and that the three taken in the latter year which had been banded in 1927 and 1928 had never returned before. Inasmuch as practically the same ground was trapped over each year, and birds were almost always retaken in the same general localities as those in which they were banded, it would naturally be expected that a few of the same birds would be taken at least two different years as returns. It is not improbable, however, that the figures are the result of chance rather than of an actual movement of the birds to other localities.

TABLE VI

Band Number	Date Banded	Returning Dates		
		1928	1929	1930
	1927			
330060	Jan. 30			Jan. 19
330059	Jan. 30		Jan. 9 (dead)	
	1928			
474851	Jan. 2			Feb. 8
474852	Jan. 2			Jan. 4
474859	Jan. 4		Jan. 9	
474870	Jan. 21		Jan. 30	
582852	Jan. 31		Jan. 26	
582860	Feb. 5		Feb. 6	
582866	Feb. 10		Jan. 26	
582884	Mar. 9		Jan. 31	
582901	Apr. 21		Jan. 11	
	1929			
582914	Jan. 19			Jan. 15
582923	Jan. 25			Jan. 18
A203912	Feb. 2			Jan. 23
582916	Jan. 22			Jan. 27
582917	Jan. 22			Feb. 6
A203927	Mar. 10			Mar. 16
A203934	Mar. 26			Mar. 29

Table VII, giving returning and survival ratios of Towhees during the entire five year period, seems to indicate a survival percentage of this species somewhat similar to that of the White-throats.

TABLE VII

Year Banded	Number Banded	Returning in				Total Number of Individuals Returning Out of Original Number Banded
		1927	1928	1929	1930	
1926	18	0 ^{5.50%} _{0%}	1 ^{5.50%} _{5.50%}			1 5.50%
1927	13		1 ^{23.08%} _{7.69%}	1 ^{15.38%} _{7.69%}	1 ^{7.69%} _{7.69%}	3 23.07%
1928	36			7 ^{25.00%} _{19.44%}	2 ^{5.55%} _{5.55%}	9 25.00%
1929	34				7 ^{20.59%} _{20.59%}	7 20.59%
1930	65					

As mentioned in a previous article, a few Savannah Sparrows and Hermit Thrushes had been taken as returns up to 1929. During 1930, two Savannahs and one Hermit return were taken. In the case of Savannah Sparrow A57001, which was banded in 1926, and which had returned in 1927, a period of two years elapsed before its reappearance in the traps. This bird was retaken on April 4, 1930, being then not less than four and three quarters years old.

In spite of the fact that eighty-three Juncos were banded during the first four years, no returns of this species have ever been taken. Once a banded bird was seen at the beginning of the season before any Juncos had been banded, but, though it was in all probability a return, this bird refused to yield to the temptation to reënter the traps which were offered it. This failure to take Junco returns is rather remarkable in view of the many which have been taken by Fletcher and others who have stations in Junco wintering territory farther north.

The species thus far taken as true returns are: White-throated Sparrow, Savannah Sparrow, Towhee, Hermit Thrush, Chipping Sparrow, and (presumably in part) Field Sparrow. To these, in 1931 up to present writing, have been added the Song Sparrow, Vesper Sparrow, Myrtle Warbler, Ruby-crowned Kinglet, and Catbird; also one Junco (after the writing of the preceding paragraph).

Brown Thrashers, Blue Jays, White-eyed Towhees, Cardinals, Tufted Titmouses, and Mockingbirds have been retaken in various seasons subsequent to their banding, but since these species are all abundant permanent residents, and probably in the main are purely sedentary, all such individuals should probably be considered as repeats rather than as true returns. To this list, in 1931, have been added the Meadowlark and Bob-white.