BANDING AT GROTON, MASSACHUSETTS 1929–1931

By WILLIAM P. WHARTON

In spite of the banding of 2752 birds of 68 species at my Groton station in the three years 1929-1931, only eight individuals have been recovered at other points—five Eastern Purple Finches, two Eastern Robins and one Eastern Savannah Sparrow. Of the 1980 birds banded prior to that period, as summarized in an article in the Bulletin of the Northeastern Bird-Banding Association, Vol. V, pp. 98–102, only three were reported as recoveries. This meagre percentage of recoveries (.29 per cent and .151 per cent respectively) cannot be otherwise than disappointing to those who on beginning this work had looked forward to gathering information which would rather quickly lead to a charting of the migration routes of each species which could be banded in numbers. It is particularly surprising in my own case that not a single recovery of such an abundant and easily banded species as the Song Sparrow has been reported. Although 691 individuals of this species had been banded up to 1929, and 738 were banded in the period covered by this article, not a bird has been heard from except the comparatively few which have returned to Groton with the advent of spring. Likewise, out of 209 Savannah Sparrows, 171 Eastern Chipping Sparrows, 168 Slate-colored Juncos, 156 White-throated Sparrows, and 123 Eastern Tree Sparrows, banded in the three-year period not a bird has been reported from any other locality with the exception of the single Savannah Sparrow mentioned above. It is noteworthy also that but three of the recoveries, all Purple Finches, have been reported as trapped by banders.

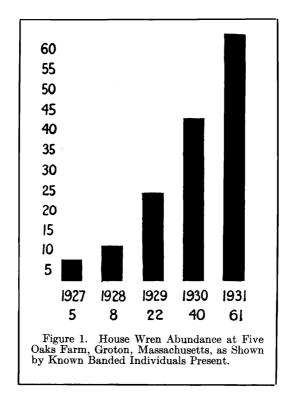
Recoveries reported during the three-year period, and those of birds banded during that period but taken subsequently, are as follows:

TABLE I

Date recovered	Band number	Species	A ge and sex when banded	Where recovered and by whom	Date banded
(May 19, 1929 (Trapped)	37972	Purple Finch	female or young male	Mrs. J. Franklin Anthony, Bar Harbor, Maine.	May 6, 1929
May 22, 1930 Rosy male (Trapped)	37972	Purple Finch		Mrs. J. Franklin Anthony,	May 6, 1929
Dec. 5, 1929 (Trapped)	B86022	Purple Finch	female or young male	Mrs. A. S. Wilder, Westfield, Mass.	May 15, 1929
Jan. 30, 1930 Rosy male (Trapped)	B86022	Purple Finch		Thornton W. Burgess,	May 15, 1929

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Jan. 17, 1930	B32854	Purple	juvenile	Mrs. W. F. McDaniel,	Aug. 5, 1929
(Dead) Jan. 25, 1930	B32873	Finch Purple		Green Pond, Alabama. J. Railsback,	Aug. 15, 1929
(Dead) Dec. 29, 1931	A278266	Finch Robin	juvenile juvenile	Shreveport, La. H. Sumrell,	June 26, 1931
(Killed) June 24, 1932	A278295	Robin	nestling	Ayden, Pitt Co., N. C. A. W. Oppel.	July 28, 1931
(Dead) July 5, 1932	F59044	Savannah		Lavallette. N. J. Mrs. Henry Beach.	Oct. 3, 1931
(Dead)		Sparrow		Port Morien, Cape Breton, Nova Scotia.	
Sept. 20, 1932 (Trapped)	F38003	Purple Finch	female or voung male	T. F. Power,	May 10, 193 1
(Trapped)		1 men	young male		l

Notwithstanding lack of results hoped for in studies of migration routes, valuable information has been gathered on other matters. Six new species have been taken as returns: Eastern House Wren, Catbird, Eastern Cowbird, Eastern Red-winged blackbird, American Redstart, and Blue Jay, making a total of 13 species recorded as returning to this



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station. The validity of the Blue Jay record as a true return, however, may be questionable. A remarkable increase in the House Wren is indicated by the fact that the number banded in 1931 was 57, as compared with 36 in 1930, 21 in 1929, and 12 in 1928. No other commonly banded species shows such a marked progressive change in numbers. The causes for this remarkable increase, apart from the availability of large numbers of nesting-boxes, are not apparent; but it should be remarked in this connection that this species seems to be practically immune from the attacks of the Protocalliphora larvæ which are such a menace to the young of Bluebirds and Tree Swallows. The increase in the numbers of House Wrens returning to and raised at this station is shown in the accompanying table and graph.

Table II shows in detail returns of Wrens during the three years under consideration:

TABLE II

RETURNING HOUSE WRENS AT GROTON, MASS.

	Date and Age			
	When Banded	1929	1930	1931
B37565	May 15, 1928 adult	June 3		
B32823	July 8, 1929 adult		June 19	July 7
B86075	June 12, 1929 adult		June 21	
B32827	July 22, 1929 prob. adult		Aug. 1	June 17
B86002	May 11, 1929 adult		Aug. 3	
C71664	Aug. 3, 1930 adult			May 15
C71661	Aug. 18, 1930 juvenile			July 7

	Total				Undeter-	
Year	Banded	Nestlings	Juveniles	A dults	mined	Returns
1927	5	5ັ	0	0	0	0
1928	8	6	0	2	0	0
1929	21	14	1	4	2	1
1930	36	32	1	3	0	4
1931	57	52	0	5	0	4
					—	
Totals for five year period	127	109	2	14	2	9

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Returns of Song Sparrows during the three-year period from the 656 birds banded in the years 1928–1930, 26 in number, were 3.968 per cent, as compared with 4.017 per cent for the period 1922–1928 covered in my previous article. The high point was reached with 5.504 per cent for 1928 birds; then came 5.194 per cent for 1929 birds; 1930 birds slumped heavily to 2.894 per cent. This proportion of returns though small in comparison with similar percentages of other species returning to their wintering grounds, is not surprising in view of the fact that most of the birds banded are juveniles flocking together in August, or later true migrants taken chiefly in October. It is worth mentioning, however, that returns of birds banded as juveniles are common. This is shown in Table III.

TABLE III

				Return	s
	Number	Number	cla s sifie	d when	banded as
	banded	retu rned	Juvenile	A dult	Un rec orded
1926	85	2	0	1	1
1927	193	2	2	0	0
1928	218	12	6	3	3
1929	231	11	6	1	4
1930	207	4	2	1	1
	934	31	16	6	9

Some of these returns were retaken for the first time during July or August, probably indicating near-by nesting, but not necessarily close proximity to the territory on which they were hatched. Others, seven in number, retaken in spring, have repeated more or less in the summer, indicating probable nesting close to the place of birth. It should be added, however, that all of these birds were banded as juveniles, not as nestlings, and consequently the exact spot where they were hatched is unknown.

The following table shows in detail records of all Song Sparrows which returned during the three years 1929–1931:

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TABLE IV

RETURNING SONG SPARROWS AT GROTON, MASS.

					turning D	ates——		
	Date banded	1925	1926	1927	1928	1929	1930	1931
54668	Oct. 18, 1924	Oct. 28	May 27	June 2	June 4	May 28		
	Sept. 20, 1925	000.20	1.1ay 2.	o une 2	vane -	Oct. 25		Oct. 15
A12168	Sept. 5, 1926					May 14	June 3	May 24
A181192	Sept. 18, 1926					Early Ar		
A183716	Sept. 18, 1920					found de		
LOOCTE	July 28, 1927				Aug. 2	June 5		
A90856	July 20, 1921				11ug	killed		
1000000	July 29, 1927				June 12	May 29		
A90869					o une 12	Apr. 10*		
B34183	Aug. 22, 1928					Apr. 28	May 7	May 28
B46732	June 12, 1928					Apr. 28		
B37566	May 15, 1928					May 5		
B34130	Aug. 7, 1928					May 6	(dead)	
696478	Oct. 13, 1928					June 1	May 26	May 26
B34105	Aug. 2, 1928					June 2	1120 20	1.149 20
696403	Sept. 28, 1928					July 12	May 9	
B34132	Aug. 7, 1928					July 12	May 28	June 2
B34128	Aug. 6, 1928						Aug. 13	bune =
B34129	Aug. 6, 1928						Aug. 5	
B34159	Aug. 15, 1928						Aug. 15	
696461	Oct. 10, 1928						May 6	
A130082	Aug. 8, 1929						May 10	
A130093	Aug. 11, 1929						May 11	
A130129	Aug. 16, 1929						May 12	May 13
A130161	Aug. 28, 1929						May 12	†May 27
A130206	Sept. 21, 1929						May 19	May 15
A130115	Aug. 13, 1929						May 28	May 10
A130239	Oct. 10, 1929						June 2	Oct. 4
A130130	Aug. 16, 1929						July 28	000. 4
A130055	July 27, 1929						Oct. 6	
A130193	Sept. 15, 1929						001. 0	June 4
A130123	Aug. 15, 1929							May 28
C71623	July 23, 1930							July 29
C71721	Aug. 10, 1930							Aug. 19
C62608	May 5, 1930							
C97198	Oct. 14, 1930							Oct. 21

Further evidence of the departing tendency of local Song Sparrows, mostly juveniles, during the last ten days of August, is offered by the following figures:

TAI	BLE V	
	Number banded	Number repeating
	to Aug. 21	after Sept. 1
1929	107	20
1930	106	7
1931	123	8
1930	107 106	

The rapid drop in Song Sparrow abundance during this period, as indicated by monthly trappings, and the increase in October caused by the migrating waves, is graphically shown in the accompanying chart.

Returning Chipping Sparrows have shown marked fluctuations in the three-year period, as shown in the accompanying table. Of the 72 birds banded in 1927, none returned the

^{*}Caught in barn by neighbor and released. † June 4 killed in trap.

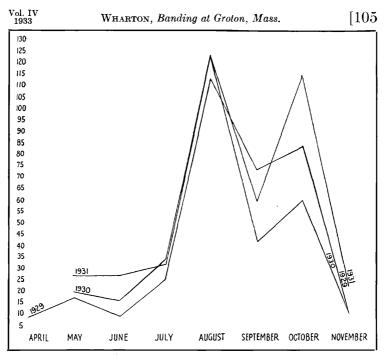


Figure 2. Song Sparrow Abundance at Five Oaks Farm, Groton. Massachusetts, as shown by the Number Trapped in the Years 1929. 1930 and 1931.

following year, and only two in 1929. On the other hand, of the 81 banded in 1928, 10 returned in 1929, (all trapped in May). Then apparently unfavorable conditions were experienced, for in 1930 only one of these ten returned, and of the 67 birds banded in 1929 but one returned. Nevertheless, in 1931 seven birds returned out of the 74 banded in 1930, indicating a quick recovery which at this writing seems to have continued into 1932. It may be mentioned parenthetically that the difficulty of trapping Chippies in the late summer and early fall, and the frequent finding of flocks in patches of crabgrass (*Eleusine indica*), led to the use of the seed of this grass for bait. While this did not bring in large numbers of birds, there is reason to believe that it did make possible the taking of many which would probably not have been trapped In the following table of returning Chipping otherwise. Sparrows, no attempt has been made to figure returning percentages, since it seems probable that a large proportion of the birds banded, especially in spring, are migrants.

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	RETURNING (s.	
80006 B7867	Date Banded May 14, 1926 Sept. 3, 1927	1928 May 10	rning Dat 1929 May 6 May 20	1930		1931
B11419 B37562 B46712	Sept. 3, 1927 Sept. 20, 1927 May 13, 1928 May 21, 1928		Aug. 23 Apr. 26	More	17	
B40712 B37567 B37557 B46709	May 15, 1928 May 15, 1928 May 11, 1928 May 27, 1928		Apr. 27 Apr. 29 May 4	May	11	
$\begin{array}{c} \mathrm{B37559} \\ \mathrm{B46724} \end{array}$	May 13, 1928 June 3, 1928		May 8 May 11 May 15 May 17			
B46707 B46719 B61553	May 27, 1928 June 1, 1928 Sept. 19, 1928		May 17 May 19 May 19	Ŧ	0	May 12
C32408 37980 C62665	Oct. 14, 1929 May 7, 1929 June 3, 1930			June	2	May 21 May 25 May 8
$\begin{array}{c} C97100 \\ C62629 \\ C62635 \end{array}$	Oct. 3, 1930 May 12, 1930 May 16, 1930					May 10 May 12 May 14
C62617 C71633	May 7, 1930 July 28, 1930				fo	May 16 und dead May 20
C62652	May 25, 1930					May 28

In the case of the Purple Finches, which have shown a strong returning tendency, it is, I think, fair to assume that probably all the returns are local breeders. Out of the 22 listed in the attached table, 16 are practically certainly such, as demonstrated by the late dates on which they have been taken as repeats, and one other is probably in the same class. In the cases of the seven which either failed to repeat or else repeated only a short time, the chances are that they either nested near by but beyond easy reach of the traps, or else met with some mishap. In the case of this species, but one return has been taken which was a juvenile when banded, and this bird was not taken as a return until July 10th of the year following banding. The Purple Finch in this locality differs markedly from the Song Sparrow and other common species in that very few juveniles are trapped and the bulk of the birds appear to leave soon after the nesting season; at any rate few of any age or either sex are taken after June, and almost none after July. The failure to take more juveniles as returns is probably due to the fact that so few are banded, and does not therefore indicate that juveniles do not return to their place of birth. My failure to take Purple Finches in late summer seems to be in marked contrast to the experience of other banders at no great distance from my station, and is not easy to explain.

TABLE VII

RETURNING PURPLE FINCHES AT GROTON, MASS.

	\sim	es			
	Date Banded 19	1929	1930	1931	
A181163	May 13, 1926	May 10			
B46710	May 27, 1928	Apr. 30	July 6		
B37585	May 19, 1928	May 8	U		
B37595	May 21, 1928	May 8			
B37572	May 16, 1928	May 10			
B46723	June 3, 1928	May 10			
37953	May 2, 1929	v	Apr. 30,	dead	
37901	Apr. 27, 1929		May 3		
37929	Apr. 30, 1929		May 3	May 9	
37956	May 3, 1929		May 5	•	
B86001	May 10, 1929		May 5		
37931	Apr. 30, 1929		May 7	May 6	
B86057	May 25, 1929		June 17	•	
B32801	June 29, 1929		June 17	June 9	
B32835	July 27, 1929		June 17		
B86099	June 29, 1929		June 18		
B86095	June 28, 1929		July 10		
B86004	May 11, 1929			June 28	
C62615	May 7, 1930			May 7	
C62673	June 16, 1930			May 10	
C62634	May 16, 1930			May 1 3	
C62602	May 4, 1930			Aug. 4	

Returns of other species which are local nesters have, during the three-year period, been as follows:

Catbird	4
Redstart	2
Vesper Sparrow	2
Red-winged Blackbrid	- 1
Cowbird	1
Blue Jay	1

The only wintering species returning to this Station has been the Tree Sparrow. The table herewith presented is further confirmatory evidence of the strong tendency of this species to return to the same wintering grounds year after year. The percentage of returns, however, is considerably lower than it was in the period covered by my previous article, being 13.07 per cent as compared with 20.43 per cent. Possibly the reason may have been a general decrease in numbers from some unexplained cause. This is indicated by the fact that in 1928, 53 birds were banded, in 1929, 70, and in 1930 only 30. The percentage of returns fell off abruptly, being 24.53 per cent from the 1928 bandings, 7.14 per cent from the 1929 bandings, and 6.66 per cent from those of 1930. These figures indicate that something probably happened during the nesting season

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of 1930 which greatly reduced the numbers of Tree Sparrows, and that they did not recover during the season of 1931. This theory is further borne out by the fact that only 23 Tree Sparrows were banded in 1931. It will be noted that the two birds at the beginning of the table lived to be approximately $6\frac{1}{2}$ years old at least, and the third nearly 6 years.

TABLE '	V	IJ	1
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RETURNING TREE SPARROWS AT GROTON, MASS.

$\begin{array}{c c c c c c c c c c c c c c c c c c c $			Returning Dates						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Date banded	1925	1926				1930	1931
A12117Apr. 6, 1925Nov. 5May 2Nov. 5May 2A70211Dec. 7, 1926Dec. 17Nov. 29Nov. 9A18606Dec. 15, 1927Nov. 30Nov. 29Nov. 29A18501Dec. 2, 1927Nov. 15Nov. 12A18610Dec. 17, 1927Nov. 15Nov. 20A18610Dec. 17, 1927Dec. 10Nov. 24A18611Dec. 17, 1927Dec. 10Nov. 22A18612Dec. 17, 1927Dec. 10Nov. 22A18613Dec. 10, 1927Dec. 10Nov. 22A18614Dec. 7, 1927Dec. 10Dec. 17B66935Dec. 10, 1928Nov. 8B66934Dec. 10, 1928Nov. 12B66934Dec. 7, 1928Nov. 12B66934Dec. 7, 1928Nov. 12B66935Dec. 7, 1928Nov. 19B66936Dec. 7, 1928Nov. 19B66937Dec. 6, 1928Nov. 21B66938Dec. 12, 1928Dec. 11B66939Dec. 6, 1928Dec. 11B66939Dec. 6, 1928Dec. 11B66939Dec. 6, 1928Dec. 11B66939Dec. 6, 1928Dec. 11B66939Dec. 7, 1929Nov. 25C32546Nov. 5, 1929Nov. 26C32546Nov. 5, 1929Nov. 26C32524Dec. 8, 1929Nov. 27C32525Dec. 8, 1929Nov. 27C32555Dec. 8, 1929Nov. 27C32555Dec. 8, 1929Nov. 27C32555Dec. 9Nov.	A12114	Dec. 23, 1924	Nov. 30		Dec. 7	Dec. 8	Nov. 21	Nov. 27	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	A12103	Dec. 15, 1924			Dec. 15	Dec. 11	Nov. 5	Nov. 18	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	A12117	Apr. 6, 1925	Nov. 5	May 2			Nov. 5	May 2	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		•						•	
A18606 Dec. 15, 1927 Nov. 30 Nov. 9 Nov. 29 A18501 Dec. 2, 1927 Nov. 15 Nov. 20 A18610 Dec. 17, 1927 Dec. 10 Nov. 24 A18512 Dec. 17, 1927 Dec. 10 Nov. 22 A18610 Dec. 17, 1927 Dec. 10 Nov. 24 A18612 Dec. 17, 1927 Dec. 10 Dec. 17 B66935 Dec. 10, 1928 Nov. 7 B668935 B668935 Nov. 11, 1928 Nov. 8 B668923 B66941 Dec. 12, 1928 Nov. 11 B66944 Dec. 7, 1928 Dec. 11 B66942 Dec. 7, 1928 Nov. 12 Dec. 3 B66945 Dec. 7, 1928 Dec. 3 B66943 Dec. 7, 1928 Nov. 12 Dec. 3 B66946 Dec. 20, 1928 Dec. 11 B66945 Dec. 7, 1928 Dec. 11 B66935 Dec. 11 B66935 Dec. 11 B66946 Dec. 20, 1928 Dec. 11 B66938 Dec. 11	A70211	Dec. 7, 1926			Dec. 17	Nov. 29	{Nov. 9		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	A18606	Dec. 15, 1927						Nov. 29	
$\begin{array}{llllllllllllllllllllllllllllllllllll$	A18591	Dec. 2, 1927				Nov. 15	Nov. 12		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $									
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	A18617					Dec. 10			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	A18619	Dec. 21, 1927							
$\begin{array}{llllllllllllllllllllllllllllllllllll$	A18612	Dec. 17, 1927							
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	A18596					Dec. 10	Dec. 17		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	B66935	Dec. 10, 1928					Nov. 7		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	B66937								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	B66895								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	B66923	Nov. 27, 1928							
$\begin{array}{llllllllllllllllllllllllllllllllllll$	B66934						Nov. 12		
$\begin{array}{llllllllllllllllllllllllllllllllllll$									Dec. 3
$\begin{array}{llllllllllllllllllllllllllllllllllll$									
$\begin{array}{llllllllllllllllllllllllllllllllllll$									
$\begin{array}{c cccccc} B66946 & Dec. 20, 1928 & Dec. 11 \\ B66925 & Nov. 30, 1928 & Dec. 11 \\ B66938 & Dec. 12, 1928 & Dec. 13 \\ C32516 & Nov. 25, 1929 & Nov. 15 \\ C322461 & Nov. 5, 1929 & Nov. 26 \\ C32524 & Dec. 8, 1929 & Nov. 27 \\ C32525 & Dec. 9, 1929 & Nov. 27 \\ \end{array}$								Nov. 29	Nov. 17
B66925 Nov. 30, 1928 Dec. 11 B66938 Dec. 12, 1928 Dec. 13 C32516 Nov. 25, 1929 Nov. 15 C32524 Dec. 8, 1929 Nov. 27 C32525 Dec. 9, 1929 Nov. 27									
B66938 Dec. 12, 1928 Dec. 13 C32516 Nov. 25, 1929 Nov. 15 C32461 Nov. 5, 1929 Nov. 26 C32524 Dec. 8, 1929 Nov. 27 C32525 Dec. 9, 1929 Nov. 27									
C32516 Nov. 25, 1929 Nov. 15 C32461 Nov. 5, 1929 Nov. 26 C32524 Dec. 8, 1929 Nov. 27 C32525 Dec. 9, 1929 Nov. 27									
C32461 Nov. 5, 1929 Nov. 26 C32524 Dec. 8, 1929 Nov. 27 C32525 Dec. 9, 1929 Nov. 27							Dec. 13		
C32524 Dec. 8, 1929 Nov. 27 C32525 Dec. 9, 1929 Nov. 27									
C32525 Dec. 9, 1929 Nov. 27									
C32529 Dec. 14, 1929 Dec. 14 Nov. 19									
	C32529	Dec. 14, 1929						Dec. 14	
F22633 Dec. 7, 1930 Nov. 28									
F22641 Dec. 12, 1930 Nov. 30	F22641	Dec. 12, 1930							Nov. 30

The species added to those listed in my former article as having been banded up through 1928 are:

*Cuckoo Magnolia Warbler *Kingbird Bay-breasted Warbler Yellow-bellied Flycatcher Northern Water-Thrush Red-winged Blackbird Alder Flycatcher Red-breasted Nuthatch Orchard Oriole Winter Wren *Scarlet Tanager Rose-breasted Grosbeak Veerv Starling **Evening Grosbeak** Red-eved Vireo Goldfinch Tennessee Warbler Grasshopper Sparrow

making a total of 80 species banded at this station. In the above supplementary list, all except the ones marked with an asterisk were caught in traps.

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NOTES ON BIRD PARASITES

Though incomplete, a record of the occurrence of parasites and of foot disease has been kept. A number of specimens of parasites were collected, and most of these were sent to the Bureau of Entomology, United States Department of Agriculture, for identification. An article dealing with parasites sent in by banders from various parts of the country has been prepared by Mr. Harold S. Peters, who has charge of this branch of investigations, and appears in this issue. Therefore no detailed summary of the results obtained at this station will be given here; a few scattered comments will suffice. In general the number of parasites noted, with the exception of the Protocalliphora and Hippoboscid flies, has been much smaller than that noted at my station at Summerville, South Carolina. Thus, in the three years under consideration 30 individuals of eleven species of birds have been noted as having ticks. 10 individuals of five species as having lice or eggs of lice, 11 individuals of six species as having chigger mites, one scaly leg mites, and one a flea. The number of birds actually infested with these parasites was undoubtedly greater than these figures would indicate. As regards *Hippoboscid* flies, 141 individuals of twelve species were noted as infested.

NOTES ON THE NESTING OF BLUEBIRDS¹

By SETH H. LOW

THE 1932 nesting season of the Bluebirds (Sialia s. sialis) on Cape Cod was so exceptionally successful that it deserves The material on which these notes are based was comment. gathered casually during the study of the nesting of the Tree The territory, boxes, and conditions are the same Swallows. as those described in the articles on the Tree Swallow.²

In 1930 ten nestling Bluebirds were banded, three in a tarpaper box at the Station and seven in holes in fence-posts near the North Eastham railroad station, which is about one and a half miles to the southeast. One adult was taken in a box; another was trapped at the Station.

¹Contribution No. 13 from the Austin Ornithological Research Station. ²Notes on the Breeding of the Tree Swallow by O. L. Austin and S. H. Low, *Bird-Banding*, Vol. III, No. 2, April, 1932, and an article in this issue, *ande*, page 76.