

AGES OF HOUSE FINCHES TRAPPED DURING FEBRUARY, 1933, AT PASADENA, CALIFORNIA

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In an effort to learn more about the ages of birds, our records for House Finches (*Carpodacus mexicanus frontalis*) trapped during the month of February, 1933, were analyzed. A tabular statement of the results follows.

Total number captured, counting each individual but once in the month.....	247
Number of these that were immatures when banded.....	126
Number of these that were adults when banded.....	121
Number that were adults when banded previous to February, 1933	64
Number that were recorded as males when captured in February, 1933.....	150
Number that were recorded as females when captured in February, 1933.....	97
Number that were banded during February, 1933.....	57
Number that were banded previous to February, 1933.....	190

Considering only the 190 that were banded previous to February, 1933, 126 were immatures and 64 were adults when banded; that is, 33.7% of the total were adults. This is a considerably higher percentage than the total number of adults banded during a year is of the total number of House Finches banded during a year, judging from the years 1926 and 1929 for which this information has been assembled. In 1926, 2740 were banded, of which 23.1% only were adults, and in 1929, 2898 were banded of which 21.9% only were adults. This, half again larger percentage of adults among the birds captured in February than among the birds banded throughout the year might easily be due to the greater percentage mortality of the birds banded as immatures. Judging purely from their reactions to traps and trappers it is apparent that the proportion of immatures that fall prey to their enemies must be greater than that of adults.

It is only those that were banded as immatures that are of known age, within an error of a few months. Within this group there are birds that were recognized as immatures when banded from April to October, inclusive, although the great majority were banded during May, June, July and August. For simplicity the period during which immatures are recognizable as such will be called the summer.

Our analysis shows that of these 126 birds captured during February, 1933, which had been banded as immatures, 51 (33 males and 18 females) were banded in the summer of 1932 and were of an average age in February of about 7 months; 40 (26 males and 14 females) were banded in the summer of 1931 and were of an average age in February of about 1 year and 7 months; 15 (14 males and 1 female) were banded in the summer of 1930 and were of an average age of about 2 years and 8 months; 10 (8 males and 2 females) were banded in the summer of 1929 and were of an average age of about 3 years and 9 months; 7 males were banded in the summer of 1928 and were of an average age of about 4 years and 8 months; 2 (1 male and 1 female) were banded in the summer of 1927 and were of an average age of about 5 years and 7 months; and 1 female was banded in the summer of 1926 and was about 6 years and 8 months old when captured in February.

One definite statement can be made from these figures, namely, that of these 126 birds banded as immatures and recaptured in February, 1933, 89, or 71 per cent, were males and 37, or 29 per cent, were females and that this heavy preponderance of males holds true for the representatives from the last five preceding seasons although it breaks down for the sixth and seventh seasons which are represented by only 2 and 1 individuals, respectively. This may mean that more males survive either because a greater portion of the immatures are males or because a greater percentage of the males survive, or both, or that a greater proportion of the February male population than of the female population comes into the traps, or that the February population contains more males than females. No data are available which will throw further light on these questions.

It is of interest to note the decreasing number of representatives from the various summers as those summers become more remote. Beginning with last summer, 1932, these numbers are, as stated above, 51, 40, 15, 10, 7, 2 and 1.

It is impossible to know the ages of those birds which were adults when banded, but they are at least as old as if hatched during the summer previous to their banding. To establish their minimum ages the year has been arbitrarily divided at October 1 and those birds banded as adults from October 1 to September 30, inclusive, have been supposed to have been hatched during the previous summer. Using this device and neglecting for the moment the 57 adults banded during February, 1933, the remaining 64 birds banded as adults and recaptured during February can be divided according to their ages as follows: 9 (3 males and 6 females) were hatched not later than the summer of 1932 and hence were at least approximately 6 months old; 35 (22 males and 13 females) were hatched not later than the summer of 1931 and hence were at least approximately $1\frac{1}{2}$ years old; 10 (3 males and 7 females) were hatched not later than the summer of 1930 and hence were at least $2\frac{1}{2}$ years old; 1 female was hatched not later than the summer of 1929 and hence was at least $3\frac{1}{2}$ years old; 5 (4 males and 1 female) were hatched not later than the summer of 1928 and hence were at least $4\frac{1}{2}$ years old; 1 female was hatched not later than the summer of 1927 and hence was at least $5\frac{1}{2}$ years old; 1 female was hatched not later than the summer of 1926 and hence was at least $6\frac{1}{2}$ years old; and 2 (1 male and 1 female) were hatched not later than the summer of 1924 and hence were at least $8\frac{1}{2}$ years old when recaptured in February, 1933.

Unlike those which were banded as immatures these 64 birds are almost equally divided between males and females (33 males and 31 females); also this ratio varies through a wide range for the representatives from the various summers.

The only thing known about the 57 adults banded during February, 1933, is that there were 28 males and 29 females among them. This is practically the same almost equal division that existed in the 64 recaptured birds which were adults when banded. Also it seems reasonable to suppose that the distribution of ages would be about the same for these two groups.

This study may be summarized as follows:

Of the 247 House Finches, 150 males and 97 females, captured during February, 1933, 57 were banded as adults during that month, 64 had been previously banded as adults, and 126 had been previously banded as immatures.

Stating their ages to the nearest half year the records of those birds banded previous to February, 1933, can be tabulated as follows:

IMMATURES WHEN BANDED					ADULTS WHEN BANDED				
Number	Age years	Percent total	Number males	Number females	Number	Age years	Percent total	Number males	Number females
51	½	40.5	33	18	9	½	14.1	3	6
40	1½	31.7	26	14	35	1½	54.7	22	13
15	2½	11.9	14	1	10	2½	15.7	3	7
10	3½	8.0	8	2	1	3½	1.6	0	1
7	4½	5.5	7	0	5	4½	7.6	4	1
2	5½	1.6	1	1	1	5½	1.6	0	1
1	6½	0.8	0	1	1	6½	1.6	0	1
					2	8½	3.1	1	1
<hr/> 126		<hr/> 100.0	<hr/> 89	<hr/> 37	<hr/> 64		<hr/> 100.0	<hr/> 33	<hr/> 31

As a background upon which to lay the picture presented above it should be stated that banding was started at this station on November 2, 1924, and for the calendar years, beginning with 1924, the number of House Finches banded each year was 18, 1117, 2740, 2154, 2293, 2898, 1887, 1135 and 2280.

Pasadena, California, April 15, 1933.