

STUDIES ON 1170 BANDED HOUSE FINCHES

WITH ONE ILLUSTRATION AND ONE TABLE

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THE PERIOD covered by this report is from November 2, 1924, to March 1, 1926, sixteen months in all. During the first two months the traps were operated only on Saturday afternoons, Sundays, holidays, and from daylight to seven o'clock on about half of the remaining mornings. After January 1, 1925, they were ready to capture the visiting birds practically all of the time. For the whole period the traps were in operation 5,475 out of the 6,650 daylight hours, or 82.5 per cent of the time that birds, other than nocturnal birds, were about. Since the first two months the traps have been open 90.5 per cent of the possible trapping time. This gives a fair idea of the continuous nature of the work carried on at this station.

Of the 2,087 birds trapped and banded during this time, 1,169 were House Finches (*Carpodacus mexicanus frontalis*). These 1,169 House Finches were in the traps a total of 3,627 times, or an average of 3.1 times per bird, which is very much less than the 10.4 times per bird attained by the California Purple Finches in the early months of 1925 (see *The Condor*, xxvii, 1925, pp. 217-223).

The records of these birds were first posted from the daily journal to year by day sheets similar to the one shown in figure 58, in the article on Purple Finches referred to above. Here a circle was placed after each band number on each day that the bird wearing the band was caught. From these sheets and other information recorded in the journal, Table 1 herewith was compiled.

Table 1 (p. 255) gives for each month of the period the number of traps in use; the number of daylight hours during which birds might be expected in the traps; the number of daylight hours traps were in operation; the number of individual birds banded; the number of males banded; the number of females banded; the number of immature birds banded; the total number of repeats; the total number of captures; the number of individuals banded each month which did not repeat during the period; the number of individuals banded each month which repeated once, twice, three times, four times, five times, six times, seven times, eight times, nine times, ten times, and more than ten times during the period; and the number of individuals captured each month. This last row of figures might be called the trap census by months of the House Finches at this station.

Some individuals were recorded as immature males or immature females and were counted as immature and as male or female in this tabulation. These were the birds that were in hand either at the time of the first molt or both before and after the first molt, thus establishing by their plumage the facts of their age and sex.

The 1,170th House Finch was in the traps on February 9 and 14, 1925, and had been banded on August 23, 1924, by Dr. Johnson at his home about three-quarters of a mile away.

Early in our observations of House Finches we began to feel the need of some standards of colors with which to compare the various males. We were referred to Ridgway's *Nomenclature of Colors*, but decided to try the scheme of plucking two or three feathers from each male bird that attracted attention, and keeping them to compare with other feathers taken from the same bird if caught again after a molt. The

TABLE 1.—HOUSE FINCHES BANDED, NOVEMBER, 1924, TO FEBRUARY, 1926, INCLUSIVE

	1924				1925								1926				Totals
	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	
Number of traps in use.....	5	5	7	7	7	7	7	7	7	8	9	9	10	10	10	10	
Number of daylight hours.....	370	370	380	360	430	450	490	490	500	480	430	420	370	370	380	360	6650
Number of hours of trapping.....	50	65	350	330	340	350	475	455	465	470	430	380	335	345	325	310	5475
Number of individuals banded.....	3	15	65	51	39	54	125	192	277	186	59	19	35	15	17	17	1169
Number of males banded.....	2	9	38	25	18	36	41	46	44	36	24	5	16	8	8	11	372
Number of females banded.....	1	6	27	26	21	18	35	35	37	22	26	14	19	7	9	6	309
Number of immatures banded.....	0	0	0	0	0	0	58	126	200	162	15	0	0	0	0	0	561
Total number of repeats.....	0	0	61	67	70	197	387	381	412	330	77	30	72	141	95	138	2458
Total number of captures.....	3	15	126	118	109	251	512	573	689	516	136	49	107	156	112	155	3627
Individuals not repeating.....	0	5	17	16	8	12	46	102	177	131	38	11	20	6	8	10	607
Individuals repeating only once.....	0	5	18	12	9	17	24	34	45	27	12	3	4	2	5	4	231
Individuals repeating only twice.....	0	0	6	2	8	8	12	20	15	10	5	1	3	6	2	1	99
Individuals repeating only three times	0	0	5	4	6	5	15	9	14	6	2	1	3	0	2	1	73
Individuals repeating only four times	0	1	4	2	1	2	7	5	10	6	0	1	2	0	0	1	42
Individuals repeating only five times	0	0	2	2	2	6	7	3	2	1	1	2	0	0	0	0	28
Individuals repeating only six times..	1	1	4	1	0	0	4	5	2	0	0	0	0	0	0	0	18
Individuals repeating only seven times	1	1	2	0	1	1	2	3	0	0	0	0	0	1	0	0	12
Individuals repeating only eight times	0	1	1	2	2	0	1	1	3	1	0	0	0	0	0	0	12
Individuals repeating only nine times	0	0	0	0	0	0	1	3	1	2	0	0	2	0	0	0	9
Individuals repeating only ten times..	1	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	7
Individuals repeating over ten times..	0	1	6	5	2	1	5	5	4	2	0	0	0	0	0	0	31
Individuals captured each month.....	3	15	75	64	63	94	184	261	384	259	92	37	81	83	65	76	

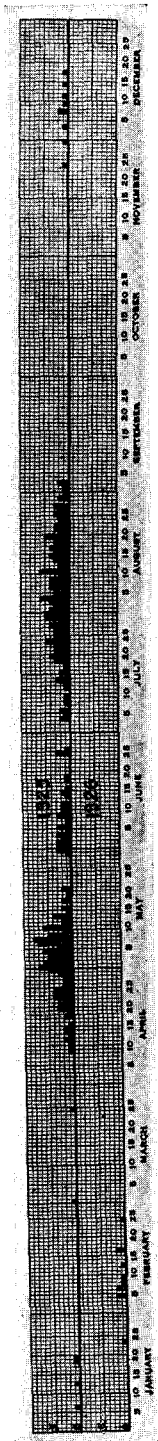


Fig. 79. Occurrence in traps of House Finch No. A-13855; ordinates show times in traps on each day.

feathers gathered in this way have not been completely mounted, so a complete report for the period cannot be given at this time. It has been learned, however, that one male which was yellow without any red before the molt in the fall of 1925, was red after that molt; and that one which was a bright red before that molt was much duller afterwards.

Only one of these 1,170 House Finches, a male wearing band number A-13855, stands out distinctly from all the rest because of the large number of times it has repeated. Beginning on January 7, 1925, it was in the traps 357 times up to March 1, 1926, and is still coming. It was in the traps four times in January, no times in February, twice in March, and then on April 9 it became a regular patron of the traps. From that date until May 21, inclusive, it was taken from the traps 125 times and missed only two of the 43 days of the period. Then after an absence of eight days it started again on May 30 and missed only two of the next 21 days, being taken from the traps 36 times. The next absence, from June 20 to July 3, inclusive, was broken by four visits to the traps, on June 25 and 26. Then from July 4 to September 3, inclusive, it missed being in the traps only three of the 62 days and was taken from the traps 165 times. It was not in hand again until November 24. It repeated once more in November, seven times in December, once in January and eleven times in February. The greatest number of repeats in one day was eight. Figure 79 is the occurrence diagram for this bird.

This bird learned to go into the Potter traps without dropping the door. Several times he was seen to hop over the treadle, help himself to the food and hop out again without dropping the door. There is no way of telling how many times he went in and out again safely. This trick almost resulted disastrously. Three times he was found held down to the bottom of the trap with the door resting across his neck. He had made a mis-step and had tripped the door on the way out. One time he was so far gone that he toppled over on the bottom of the trap when the door was raised, but he recovered immediately and sang his usual song when released.

This bird was a very pleasing little fellow. He often chirruped when in a trap as if he were asking to be let out. And when a hand was put in to take him, he fluttered around a little and then turned with his head toward the door, and allowed the hand to grasp him. Almost without exception he sang his full song as he flew away after being released.

In the late summer he could be distinguished from the other birds by his trap-worn plumage, so he was occasionally released, when in the cloverleaf traps alone, without being taken in hand. When in these traps with other birds, he was usually the first to go into the gathering cage, and then when the rest were in he would dash out into the trap before the door could be closed. Of course other birds perform this way sometimes, but A-13855 did it so consistently while visiting the traps so often that it seemed

he had learned to lead the other birds into the gathering cage, and then go back into the trap himself so he could be released without being handled.

In spite of the great number of times he has been in the traps, he seems to object to being handled more than some of the other House Finches. One male in particular, A-35435, was so tame it was difficult to drive him into a gathering cage and he fluttered very little when being taken in hand.

One interesting fact in connection with the repeat record of A-13855 is that after each of the two gaps when he did not come into the traps, one in late May and the other in late June and early July, he came to the traps again with a brood of young birds begging to be fed. These two absences from the traps were undoubtedly due to his abandoning the food offered in the traps for seeds in the milk with which all nestling House Finches are fed.

In closing we want to offer to Mr. Sprot and others (see *Condor*, xxvii, 1925, p. 230) some measure of assurance that trapping for banding purposes does not result in an undue number of bird fatalities. Here are the records of 1,170 House Finches. Of these, 48 per cent repeated at least once during the period of sixteen months. Counting time for each bird from the day it was banded, 37 per cent repeated after five days, 31 per cent after ten days, 25 per cent after one month, and 20 per cent after two months. Further details are given in Table 2.

TABLE 2.—NUMBER OF HOUSE FINCHES REPEATING AFTER VARIOUS LAPSES OF TIME, COUNTING FROM DATE EACH WAS BANDED

	Number	Per Cent
Total number banded.....	1,169	100
Total number repeating during period.....	562	48.1
Number repeating during first five days only.....	126	10.8
Number repeating after five days.....	436	37.3
Number repeating after ten days.....	366	31.3
Number repeating after one month.....	290	24.8
Number repeating after two months.....	236	20.2
Number repeating after three months.....	191	16.3
Number repeating after four months.....	149	12.7
Number repeating after six months.....	90	7.7
Number repeating after one year.....	8	.7

Only five House Finches were known to have been killed during the trapping and banding operations. Two of these were taken from a trap by a dog, two were killed by the hot sunshine while in a trap, and one was killed by flying against a window. About an equal number have been reported as "found dead" or "caught by cat" within a mile around. Aside from these, no deaths are known and there is no evidence whatever to indicate a single bird has been released and later died from injuries received in the traps. Neither does Mr. Sprot's article referred to above give any such evidence.

In answer to Mr. Sprot's last question, "Are we Bird Banding, or merely banding birds" let it be said that we, the banders, are banding birds or bird banding, it matters not which word is put first, for a serious purpose, the purpose of studying birds. In order to get the desired results from the purely banding work, birds and many birds must be banded, and because the operators of banding stations are sufficiently interested to band many birds is no reason to refer to them as "striving in a childish manner to band more than one's neighbor, or to beat some foolish record", or to assume that it is being done at the expense of bird life. Such is not the case.

What might be termed the supplementary side of the banding work probably is of the most importance, and the banders are taking advantage of the opportunity for study given them by such an abundance of live birds in hand.

Pasadena, California, April 9, 1926.