

## THE CONCENTRATION OF CATBIRDS AT THE CLOSE OF THE NESTING SEASON

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Mention is made by the writer in the October, 1930, issue of *Bird-Banding*, of the probability suggested by John T. Nichols that Catbirds (*Dumetella carolinensis*), tend to concentrate in certain favorable tracts at the close of the nesting season. Such tracts being understood to contain a density of cover, water, and food, such as insects and wild berries of many kinds.

During the past five years, in Huntington, Long Island, New York, this concentration of individuals from outside my banding station area has apparently centered in an extensive planting of Scotch pine, now about fifteen years old, situated on the northern boundary of my station. Wild blackberry canes and other small berry-bearing growth have overgrown this planting to such an extent as to make it almost inaccessible in places, while a constant supply of water is assured by my traps and several bird-baths of my neighbors.

This concentration near my station usually takes place in August but occasionally continues into September when weather conditions are arid. The following table of Catbird captures at the station supports this view:

Year		May	June	July	Aug.	Sept.	Oct.	Total
1931	Adult .....	19	4	4	6	2	0	35
	Immature .....	0	0	3	26	8	0	37
1932	Adult .....	31	8	1	5	12	7	64
	Immature .....	0	0	14	33	13	1	61
1933	Adult .....	11	1	7	13	5	2	39
	Immature .....	0	8	7	16	1	1	33
1934	Adult .....	26	14	1	11	6	2	60
	Immature .....	0	1	6	43	1	0	51
1935	Adult .....	26	6	10	8	28	1	79
	Immature .....	0	23	23	49	9	0	104
Total Individuals .....		113	65	76	210	85	13	563

It will be seen that a large percentage of each year's catch is made in August and that many new adults are taken at this time. In the seasons of 1932 and 1935, I believe the concentration periods extended into September. It will be noticed in the above table that more adults and immatures were taken in September of these years than is usual. The extension of this period in 1932, I believe, is due to weather conditions. James H. Scarr, United States Meteorologist, in his weather records for New York and vicinity, gives the average precipitation for August and September as 7.72 inches, while in the season of 1932, the rainfall during these two months amounted to only

4.28 inches. During the first fifteen days of September the maximum temperatures were considerable above normal; the second day of the month registered the highest temperature of the year.

Weather conditions in 1935 were similar. August, 1935, had less rainfall than the dry August of 1932. September, 1935, had more rainfall than is normal, but this was nearly all confined to four days early in the month, September 3 to 6, while temperatures for the two months were very close to normal.

A tabulation of the trap repeats of this usually trap-shy species for the five years further supports the concentration theory. Sixty-six per cent of the repeats were made in August and September and are as follows:

	May	June	July	Aug.	Sept.	Oct.	Grand Total
Repeats .....	20	22	26	77	55	7	201

Forty-five of the above September repeats were made in 1932 and 1935 which is more than five and one-half times greater than the total repeats made in this month for the other three years. The same number of water-baited traps have been in operation throughout the entire five years and in the same locations. As the majority of these traps are of the automatic type, the element of chance in the trapping of these birds is equal throughout the seasons. Unless there was a concentration, as suggested, it would seem that the records would be different.

While it is admitted that birds of the year greatly swell the totals of the new birds trapped in July and August, and also swell the number of repeats, immature birds being easier trapped than adults, young birds do not account for all of this concentration. Many new adults are trapped in August and seldom caught at other times.

With the thought in mind, that many of the immature birds appearing in my traps during the concentration period might be young from nearby nests, twenty-seven fledglings were banded in 1935, within 500 feet of my station to test out this theory. Only two of these fledglings repeated in my traps. Both repeated once in the first week of August. It is the belief of the writer, that the female and her brood wander away as a family group after leaving the nest. They appear to wander far enough to be outside of the area from which the concentration near my station is drawn and probably join some other concentration elsewhere. The male stays around his territory and if it is early in the season, he may be joined by another mate. However, old male birds, in which sex is known by colored banding, are a part of the influx of adults at the local concentration.

Possibly the theory of a concentration is best shown by the records of certain individuals at this station, many of them at least two or three years old, which are seldom taken during the nesting season, but appear in our traps in August. They are as follows:

Band No.	Date of Banding	Year	August	Repeats and Returns Other Months
B-165493	May 17, 1932	1932	9	May 18, June 15
		1933	....	July 28
		1934	3, 10, 11	.....
		1935	.....	*July 20
B-165496	May 18, 1932	1932	....	.....
		1933	2	.....
		1934	1, 16	May 20, July 5
C-132219	June 16, 1932	1932	20	June 17, 18, July 13
		1933	6	May 13
		1934	17	May 17
		1935	.....	.....
C-132239	July 29, 1932	1932	29	.....
C-132262	Aug. 11, 1932	1932	....	.....
		1933	....	July 15
		1934	10	May 12
C-132270	Aug. 14, 1932	1932	....	.....
		1933	....	Sept. 18
		1934	7	.....
		1935	....	Sept. 22, Oct. 5
C-144214	Sept. 21, 1932	1932	....	.....
C-144282	May 18, 1933	1933	30	.....
		1934	10	.....
F-102408	July 27, 1933	1933	5	.....
		1934	22	.....
F-102482	May 12, 1934	1934	1, 18	.....
		1935	....	July 4
		.....	.....	.....

\*Caught by neighbor's cat—released.

These ten Catbirds repeated the same year as banded, five times before August and seven times during August. During the following years they were in the traps four times during May, five times in July, twelve times in August, twice in September, and once in October.

It is believed that the above adults nested at some distance from the banding station and at the close of the nesting season they were attracted to the vicinity of the station by the favorable factors already mentioned.

In the case of C-132219, the nesting history of this bird is known for three years. In 1932, C-132219, a male, nested with his mate within ten feet of an automatic trap, hence the large number of repeats in that year. During 1933 and 1934, he nested 300 feet east of our traps and while he recorded his presence at the beginning of the nesting season, he did not repeat again until August during the last two years. It is thought that the case of C-132219 is typical of the majority of such adult males which are trapped each year in August.

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