

GENERAL NOTES

A Problem in Catbird Distribution.—To understand this problem in Catbird distribution, if it is such, one must have a full description of the locality of the banding station. The main business thoroughfare in the section of the town in which I live divides into two concrete highways about five hundred yards from the banding station. On the outer sides of the "Y" thus formed, grocery stores, bakeries, lumber-yards, and filling stations continue on both sides. The triangle within the "Y" has grown up wild with briars, locust, wild cherry, scrub oak, and a few maples, being a tangle of brush and trees until it runs into the lawns of the residential section.

At a point where the branches of the "Y" must be some two hundred yards across, my banding station occupies the southwest corner of this top stretch. Judging from previous observations, I should think that there was just enough room for five pairs of Catbirds, at the most, to nest in this thicket with harmony. An extensive search in the late fall brought only two nests to light that could be considered as belonging to Catbirds. However, allowing for five resident pairs of these birds and supposing that each pair successfully raised two broods of four each, the seasonal Catbird crop plus the resident pairs at this station would equal fifty individuals. It is improbable that we banded each individual that visited this station, yet in the season of 1929 we trapped and banded ninety-five Catbirds, only nineteen of these being definitely recorded as immature. My problem is to explain the abundance of this species in such a small area—approximately half an acre.

The order in which these birds were caught during 1929 is as follows:

Month	Individuals	Adults	Immature	Repeats				
				May	June	July	Aug.	Sept.
May	4	4	0	1	2	1	1	0
June	3	3	0		1	0	0	0
July	29	13	16			2	1	0
August	45	42	3				5	3 ¹
September	14	14	0					1
	95	76	19	1	3	3	7	4

It is easily possible that some of the birds listed as adults may have been birds of the year or immature. However, all were closely inspected, and while it was hard to be sure about some, the birds were listed as closely as possible as to their age. Immature birds were judged by the pale rufous color of the under tail-coverts and a fluffiness of these feathers. This characteristic was accompanied in some instances by pale yellow fleshy skin at the base of the mandibles, although this was not apparent in all individuals so listed.

My first attempt to account for this abundance of Catbirds at my station, was the supposition that this species in the spring migration spread out and traveled singly or in twos and threes, while in the fall flight they traveled in groups of a dozen or more, perhaps by families. After catching 79 Catbirds earlier in the 1929 season, on August 29, 1929, we caught seven more new birds. The traps and bait used were always the same, water being the principal bait. Possibly the fact that it was drier in the fall of 1929 than in the spring, brought more birds to the traps.

The present returns for 1930 shed very little light on the problem and are as follows:

¹ One bird reported to the Biological Survey two weeks after banding as being found dead a few miles south of station.

Individual	Banded as Adult	Repeats 1929	Returned	Repeats 1930
459043 . .	May 4, 1929	May 14 and 20	June 21, 1930	none
351522 . .	June 2, 1929	June 3	May 7, 1930	July 1
A230911 . .	Aug. 29, 1929	none	May 27, 1930	none
A230918 . .	Aug. 31, 1929	none	June 1, 1930	June 22-July 27 and Aug. 4

The second suggested solution of this problem, and the one which I believe is the best, is found in a letter Mr. J. T. Nichols, of the American Museum of Natural History, wrote me on the subject. It is well known that Mr. Nichols is an authority on birds of this region, and I quote from his letter of July 29, 1930, as follows:

"In regard to your Catbirds, off-hand, I do not believe that July-August birds of 1929 were true migrants. Presumably, at the close of the active nesting-season the territorial spacing of individuals of the species breaks down, making a concentration of the summer-resident population possible. You had such a concentration last year to an abnormal degree owing to drought conditions and general scarcity of water."²

On August 8, 1930, Mr. Nichols reported that the Catbirds at Garden City (about fifteen miles west of this station) were reduced in numbers; probably not half of the normal breeding population being present—a slight bit of evidence favoring a concentration hypothesis. Eleven days later, Mr. Nichols again writes that this species is still scarce at Garden City while at Mastic, a town thirty miles southwest of my station, Catbirds are still plentiful.

It has always been my belief that Catbirds, after selecting an area in which to nest, will drive all others of this species from their chosen spot. I have explained this satisfactorily to myself by believing that each pair have to have a sufficient food-supply available about the nest-site so as to facilitate the feeding of their young. This supply is assured by driving out competition. As Mr. Nichols explains, this territorial spacing would naturally break down at the end of the active breeding-season, and members of the same species would concentrate in certain select areas where the food-supply is very abundant. It is noticeable that the greatest abundance of this species occurs at our banding station at the end of the breeding-season and when the tangle of blackberry vines and the numerous wild cherry trees are laden with ripe fruit.

The lack of, or abundance of, water seems to be the controlling factor in the trapping of Catbirds with water-baited traps. The 1929 season was extremely dry, so that water bait was very attractive. During the 1930 season it was not so dry, and water-baited traps did not have an equal attraction, although this species seemed just as abundant about the station during the end of August as they were a year ago. On August 28th, fifteen unbanded Catbirds were observed at this station, ten being in sight at one time) and only three new Catbirds were trapped in water-baited traps. With the exception of one bird, no new Catbirds have repeated this year.

² In *The Auk*, Vol. XLIII, pp. 498 and 499, attention was called to a local movement of adult Catbirds with some young birds from their nesting-area about my banding station in Cohasset, Massachusetts, to a neighboring swamp to molt. The view of Nichols, therefore, accords with mine in respect to the probability of such a movement in August. The Catbird movement cited above was repeated for several years afterwards, and I came to the conclusion that locally nesting Catbirds, as the period of molt was in order, concentrated in a swampy tract possessing the conditions this species requires during the trying period of molt, *viz.*, water for bathing and drink, abundance of food (in this case elderberries and viburnum berries), and thick cover.—C. L. W.

The 1930 Catbirds behaved differently from the birds of the previous year. To catch three Catbirds under a four-foot drop trap was not a rare occurrence, and two at a time was fairly common last year, yet this year we have only caught two at a time once. Often in 1929 four or five of these birds played about on the top of a trap, and tussles with the pull strings were comical to watch, the birds showing no fear of the traps. However, this season an individual will fly close to the trap, inspect it, and, more often than otherwise, fly away again. Most of this season's birds have been caught in a Chardonneret trap. It is worthy of note that this species has dominated our seasonal catch this year again, although not as emphatically. The 1930 birds have been trapped as follows:

Month	Individuals	Adults	Immature	May	Repeats		Aug.
					June	July	
May	5	5	0	0	0	0	0
June	3	3	0		0	0	0
July	4	2	2			0	0
August	24	6	18				2
	36	16	20	0	0	0	2

—GEOFFREY GILL, Huntington, Long Island, N. Y., September 1, 1930.

Three Snow Bunting Returns-W, and a Recovery.—In the *Bulletin of the Northeastern Bird-Banding Association*, Vol. V, pages 66 to 76, Wendell P. Smith's paper on "A Preliminary List of Migratory Species which Return to the Same Wintering Area" gives a list of the species known to do so at that time. During the past winter (1929-30) I have succeeded in adding another species, the Snow Bunting (*Plectrophenax nivalis nivalis*) to Smith's list. F. C. Lincoln, of the Bureau of Biological Survey, wrote me that the returns given below are the first to be received by the Bureau. The details follow:

Number B80242, banded February 8, 1929, at 8.30 A.M., returned December 25, 1929, at 10.56 A.M. at the same place, repeating February 11, 1930, at 3.15 P.M., and these records of its capture give evidence that it remained about this area during most of the winter.

Numbers B80266, banded February 22, 1929, at 7.20 A.M., and B80269, banded February 25, 1929, at 8.11 A.M., were retaken as returns on March 12, 1930, at 6.42 A.M. and 7.20 A.M., respectively. Whether these two Snow Buntings wintered in this area but escaped being captured, or wintered at some other location, is much in doubt. It may be that they wintered south of here and were at the time they were retaken on their way to their northern nesting-grounds. My reason for this opinion is from observations during two winters (1925-26 and 1926-27) that I spent at Three Rivers, St. Joseph County, Michigan. Here my last records of the presence of this species were March 12, 1926, and February 6, 1927, indicating that individuals of this species wintering south of McMillan were perhaps passing over McMillan at that time.

Up to the present time, May 23, 1930, I have banded one hundred and fifteen Snow Buntings. Below is given a table of captures of this species at my station:

Winter of	Number Banded	Repeats	Returns
1928-29	81	18	—
1929-30	34	6	3
	115	24	3