

GENERAL NOTES

Notes on Speed of Migration.—These banding records, which indicate rapid migration, seem of sufficient interest to warrant their publication now. Data are accumulating in the banding files that may in time make possible some definite conclusions on this subject. The Mallards and Chimney Swifts here listed were all banded during the height of fall migration and their flights perhaps represent about average rates.

MALLARD:

38-643930, banded at Lacreek Migratory Waterfowl Refuge, near Martin, South Dakota, on October 17, 1938, was shot October 19, 1938, near Pawhuska, Oklahoma, a flight of at least 550 miles.

38-643971, also banded at Lacreek Refuge, on October 18, 1938, was shot October 20, 1938, 2 miles south of Carmen, Oklahoma, a distance of about 510 miles.

38-717241 was banded at White River Migratory Waterfowl Refuge, near St. Charles, Arkansas, on November 24, 1938, and was shot the following day 2 miles northeast of Holly Beach, Cameron Parish, Louisiana. This is a distance of at least 300 miles.

CHIMNEY SWIFT.

38-52486, banded September 20, 1938, at Newark, Ohio, by Dr. Lawrence E. Hicks, was retrapped September 27, 1938, at Nashville, Tennessee, by Mrs. F. C. Laskey. The airline distance is approximately 375 miles.

39-111991, banded September 22, 1938, at Glasgow, Ky., by F. Everett Frei, was retaken the following morning at Nashville by Mrs. Laskey. The bird was banded and released at 5.30 A.M., and the chimney in Nashville closed at 6.00 P.M. that evening, so the flight of 80 miles in an airline represents just one day's flight.

39-34177, banded September 23, 1938, at Lexington, Missouri, by Irvin St. J. Sturgis, was retrapped September 27, 1938, at Baton Rouge, Louisiana by George H. Lowery, Jr. The distance is about 600 miles.

In the case of Swifts the airline distance between the points of capture, of course, represents only a fraction of the distance actually traveled by the birds feeding on their way.—MAY THACHER COOKE, U. S. Biological Survey.

An Analysis of Catbird Returns Over a Ten Year Period.—Beginning with the spring of 1929, up to and including the autumn of 1938, 1,134 Catbirds (*Dumetella carolinensis*), have been banded at Huntington, Long Island, New York in a ten year period. Of this group, 489 birds were banded as adults, 579 as immatures and 66 as fledglings. It should be remarked that the number of adults may be slightly less and the number of immatures slightly more, as difficulty is experienced in September and October in exactly classifying some individuals as to age.

Up to the present date, 99 individuals have made a total of 158 returns at this station. To these station returns can be added four individuals found dead within a mile of the station, one to three years after they were banded, giving mute proof that they also returned.

Other recoveries reported to the Biological Survey consist of an adult and an immature recovered locally before migration in the same year that they were banded. Only one Catbird has been recovered at a distance, and this, less than thirty miles west of the station in June of the year following its banding. None of this group of 1,134 catbirds has been recovered during the winter months anywhere.

Of the 99 individuals to return, 63 of them were banded as adults or almost two-thirds of all the returns. Thirty-five birds to return were banded as immatures and one return was banded as a fledgling. This fledgling banded in June, 1933, returned and nested within a few hundred feet of its birthplace in both 1934 and 1935, and represents the only such record out of the 66 fledglings so marked.

Fledglings were banded in five different seasons and represent the broods from nineteen nests. All these nests were located within a few hundred feet of the banding station and the young were banded for the purpose of learning whether they would be taken in the nearby traps after they left the nest. Such captures would partially explain the great influx of immatures at this station during August and September of each year. Only three of the entire 66 fledglings appeared in the traps and these were taken only once, giving weight to the belief

that the young birds wander far from the nesting territory soon after they leave the nest.

It is interesting to note that of the 63 adults which returned, two-thirds of them were birds banded in May and June and were probably nearby breeding birds. Of the adults which returned, 31 were banded in May; twelve in June; six in July, four in August; nine in September and one in October.

Of the 35 birds which returned to the station and which were originally banded as immatures, most of them returned in August and in September, pointing to a breeding territory some distance from the point of banding. A typical example is the Catbird, C-132270, banded as an immature on August 14, 1932. This bird returned in the traps on September 18, 1933; August 4, 1934; September 22, 1935 and on July 17, 1936. There are other Catbirds banded as immatures in August and September which have returned in the following May. Such birds are represented by the history of 36-151017, which returned on May 18, 1937; May 8, 1938 and May 9, 1939. These birds are in the minority and it is the belief of the writer that this only occurs when a nearby territory is left vacant due to the death of one of the previous residents.

Unlike the records of other stations, particularly that of Marion A. Boggs of Waynesville, North Carolina, who has recorded the return of two Catbirds at least seven years old, and the banding station of Beecher S. Bowdish of Demarest, New Jersey who has recorded a nine year old Catbird, this station has no such long life records. Of the 58 individuals returning which were banded previous to 1936, only two are known to be not less than five years old. Of 75 returning individuals banded previous to 1937, only fifteen are known to have lived at least four years, while of 86 returning birds banded previous to 1938, 36 are known to be at least three years old.

Taking the age of the oldest banded bird recorded at this station and assuming that this age, divided by two, would give the average life-span of a Catbird, it would place the average age-limit at around two and one-half years. Such a theory is substantiated to a degree by banding records, but, due to the large element of chance in the trapping of wild birds, a large number must be banded and must return to the same traps before any conclusions can be drawn. Showing how hasty theories can be readily upset, two cases can be cited. Catbird, 34-142824 was banded as an immature in July, 1934. For three years following its banding it never entered the traps and it could be readily assumed that it had lived its average life-span of two and one-half years and passed on. On September 14, 1938, this bird was a return-1 in the traps and was then over four years old. A similar case is that of Catbird B-165487, banded as an adult on May 11, 1932, which was a return-1 in the traps on May 26, 1935 and was also at least four years old. Coupled with the long life records of Catbirds reported elsewhere, such cases counsel hesitancy before embracing, too enthusiastically, a theory of an average life-span for Catbirds, of two and one-half years.

Possibly one-half of the age of the Waynesville, North Carolina Catbirds, who are at least seven years old, might be taken as the average life-span of this species, placing it then at three and one-half years. Yet it would seem, if this were true, three- and four-year age records would be much more common in the data accumulated at this station. Only continued banding and trapping will give the correct answer.

In conclusion it may be said that nearby nesting Catbirds will furnish the most consistent return records at a banding station. That Catbirds banded as immatures will occasionally return to the place of banding in the spring of the following year, but that the majority of such returns obtained will be after the close of the following breeding season.

That the average life-span of this species cannot be calculated with any accuracy, until after a much larger number of Catbirds have been banded and have been taken in the traps as returns, than is considered in this paper, and that even then, the average life-span may differ in different localities.—GEOFFREY GILL, Huntington, Long Island, New York.