

THE FIRST APPEARANCE AND SPREAD OF THE  
BREEDING RANGE OF THE EUROPEAN  
STARLING (*STURNUS VULGARIS*) IN OHIO.

BY LAWRENCE E. HICKS.

ON February 7, 1919, the writer captured a live specimen of the European Starling (*Sturnus vulgaris*) at Fredericktown, in Knox County Ohio. The bird appeared either sick or greatly weakened due to exposure to cold and was found perching upon the railing of the fire escape of the old Baptist Church building located on the eastern side of the public square of the village. After a number of attempts, the bird was finally captured. It appeared to revive somewhat after being in a heated building for a few hours but on the morning of the 8th, was found dead.

As the writer at that time had not learned to prepare bird skins, only the wings were saved. These are now at the Ohio State Museum at Columbus and perhaps represent the second Ohio collected specimen of the species. The first known record of the species west of the Allegheny mountains was a bird taken at West Lafayette, Coshocton County, Ohio in January 1916. Starlings had been released, however, at Cincinnati, Ohio, in 1872 and on several subsequent occasions, but no reports were ever received from any of these birds.

Mr. S. V. Wharrum of Austinburg, Ashtabula County, reports that he has observed the species every year since 1919, his first record being obtained late in 1918. It is altogether possible that the species had made its appearance during the winter months in many localities in the northeastern quarter of Ohio previous to the year 1920, as many observers in other localities overlooked the species for a considerable time after it was known to be fairly well established.

The next starling record was obtained May 11, 1920 when 6 individuals were seen near Belleville, Richland County. On May 21, 1920, groups of 2, 5, and 3 birds were seen in the vicinity of a grove of sugar trees three miles northwest of Belleville. The birds appeared to be nesting in the vicinity but it was not until

June 2, 1920 that I was able to return to the grove and verify the fact. Three tree cavities at heights of about 45, 60 and 65 feet proved to be occupied by nests. Two of the nests were inaccessible but one was successfully reached and the young birds observed at close range. The adult birds were also watched for a time and some notes taken concerning their regular trips to the grove bringing food.

During the 1921 season no less than 6 pairs of starlings nested in the grove and 2 other pairs were found nesting along Clear Fork Creek near Lexington. In 1922, at least 11 pairs nested in the grove and several other pairs were found nesting in the vicinity, at Lexington, near Mansfield, at Butler and near Gatton Rock, all in Richland County.

The second Knox County record was obtained on Aug. 14, 1920 when 21 birds were observed just west of Fredericktown. Flocks of 18 and 38 were seen in the same locality on Aug 19 and Aug. 23 and a group of 7 near Chesterville, Morrow County, on Aug. 29. Also 12 birds were recorded near Chippewa Lake, Medina County, on Aug. 8, 1920.

During 1921 small flocks of starlings were observed in July near the Wooster Experiment Station, Wooster, Wayne County; near East Palestine, Columbiana County; west of Cambridge along the Old National Road, Guernsey County and near Bridgeport, Belmont County. In addition, 12 pairs were found nesting within 3 miles of Fredericktown, 2 pairs near Ankneytown, and at least a half-dozen pairs near 'The Caves' at Millwood, Knox County. A single pair also nested in a grove along the Mohican River near Loudenville, Ashland County.

The first starling record for the Columbus region was obtained by C. F. Walker and E. S. Thomas on October 20, 1921, a single bird being seen flying about a barn a few miles south of Columbus. Another single bird was observed by Mr. Walker on Sept. 18, 1922, near Carrol, Fairfield County, Ohio.

During 1922, the writer again found starlings nesting in Richland, Ashland and Knox counties and new breeding records were obtained from Walhonding, Coshocton County; Johnsville, Williamsport and Chesterville, Morrow County; Utica, Licking County and Lakeville, Holmes County. The total number of

starlings seen in 1922, including many small flocks in July, August, September and October, probably did not exceed 600.

During 1923, new breeding records were obtained from Galion, Crawford County; Sparta, Morrow County and Croton, Johnstown and Granville, Licking County. During October 1923, starlings were first observed at Westerville, Franklin County; Sunbury, Delaware County; Marion, Marion County; Defiance, Defiance County; Continental, Putnam County; Napoleon, Henry County and at Bowling Green, Wood County. Several flocks of from 50 to 200 birds were seen in Knox, Morrow and Richland counties in late July and August, perhaps a total of nearly 2000 birds being seen during the whole year.

In 1924, at least 25 pairs of starlings nested in small sugar groves in the vicinity of Westerville, Franklin County, and other observers reported numbers of immature birds elsewhere in the county. Other nests were observed at Sunbury and Powell, Delaware County. Starlings were found nesting at all of their former locations that were revisited and in most cases there was a marked increase in the size of the nesting groups, with frequently an additional pair or two nesting in some adjacent grove of trees. A great variety of nesting sites was chosen but by far the greater number was found in cavities in the dead tips of sugar maple trees. Perhaps this accounts in part for the fact that the species became more abundant and established itself as a summer resident at an earlier date on the whole in sections where beech-maple was the predominate forest type, many of the oak-hickory and other forest type sections still having rather sparse starling populations during the nesting seasons. Stream bottom areas with many large cavity-bearing trees such as sycamores and elms were also early invaded.

During the months of July and August of 1924, flocks of starlings were seen almost daily, many flocks being of considerable size. The birds were rarely observed feeding in the vicinity but appeared to be of an extremely restless nature and uneasy as though disturbed by some migratory urge.

On Aug. 14, 1924, I observed my first large flock of starlings at Fredericktown, Knox County, Ohio, a group carefully estimated to consist of about 1800 to 2000 individuals. The birds spent

most of the time between 4 P.M. and 7:30 P.M. upon the wing, splitting up into numerous groups, then collecting together again into one noisy, garrulous mass of flashing streaks, swirling and gyrating, first climbing and then dipping, several hundred flying together in formation as one individual, then discarding their rhythmical flight, splitting into numerous smaller groups and continuing in a score of diverse directions. At times the flock would be divided into four or five groups, each flying parallel with the ground but at a different height and in a different direction. These elaborate maneuvers presented a striking pattern against the sky. Several times at later dates, I have observed the same phenomenon but I have never been fortunate enough to witness again an aerial display of such unusual appearance. Even counting this large flock, probably not more than about 4500 birds were observed during the year of 1924.

During 1925 a gradual increase in the species was noted in all localities. It is my opinion that the species had certainly made its appearance in every one of our Ohio counties by the year 1925, perhaps a year or even two years earlier, although it was not until late in May 1929 that the writer at last succeeded in securing a personal record from each one of the 88 counties. During 1925 approximately 6000 individuals of the species were observed on all field trips, the majority being recorded during July and August as in the previous year.

After 1925 an attempt was made to actually count all smaller groups and take careful estimates of the larger flocks of starlings observed on each field trip and to tabulate these statistics for each month and year. In 1926, about 4500 birds were observed during the months of July and August and 2300 during the other 10 months of the year on 105 field trips.

In 1927, 157 days were spent in the field and 8490 individuals were recorded in 10 months, July and August being spent outside of Ohio. In 1928, 21,200 birds were checked in my roll book on 163 field trips. In 1929, 25,300 were recorded in 141 days. During these two years every Ohio county was visited. In 1930, 169 days were spent in the field, including some work in each one of the 88 counties of the state, and the starlings recorded totaled 25,400. In 1931, 21,689 starlings were recorded on 157 trips.

These figures and data would seem to indicate that the species occurred in Ohio in a number of localities previous to 1920, first occurrences usually being during the winter months, the greater numbers occurring during spring and fall movements or in July and August. From 1920 to 1923 starlings became frequent and well established as summer residents in many localities, occurring in widely scattered portions of the state. From 1924 to 1928, the species extended its range to every section, becoming common to abundant as a summer resident where suitable nesting sites were abundant. From 1928 to 1932, the numbers appear to have remained practically constant but with marked increases in some localities, and with an apparent general adjustment of the species to varying environmental conditions throughout the state. Starlings appear to have approximately reached their maximum abundance in most sections at the present time, under existing conditions.

The summary table given below of the number of starlings observed each year by parties in widely separated portions of the state in taking the annual 'Bird-Lore' Christmas Census, indicates the rapid increase in numbers of the species as a winter resident. The unusually large numbers recorded for the 1931 census are largely due to the very mild weather of the season and to the fact that several stations reported very large flocks, rather than to any considerable actual increase over the 1930 numbers.

Year	Number of Census Reports	Number Reporting Starlings	Total Number of Starlings	Average Number of Starlings per census
1920	14	1	25	—
1921	13	0	0	—
1922	17	1	14	—
1923	11	2	61	—
1924	12	4	56	5
1925	15	5	177	12
1927	18	12	455	25
1928	19	12	1218	64
1929	18	13	2557	141
1930	27	21	2174	81
1931	21	19	8570	408
1932	11	11	2618	238

Many problems remain to be solved concerning these new additions to our avifauna. Some of them that might be suggested are—

1. Where do our resident birds winter and where do our wintering birds breed?
2. When and how rapidly do the most important movements take place?
3. How extensive are the present migrations and wanderings of the species and what routes are followed?
4. Do flocks of birds remain constant as to individuals and number and do they use any one roosting site for any considerable length of time or from year to year?
5. Where do young starlings raised in Ohio breed the next year?
6. Are extensions of the present starling range made by the older birds or by the surplus offspring of each year?

Each problem mentioned brings to mind a number of questions which we must answer before we can really understand the status of this emigrant in its adopted land. The practical method which promises most, perhaps, is bird banding. From 1927-1932, the combined efforts of various members of the Wheaton Club of Columbus have made it possible to band approximately 15,400 starlings. Already sufficient returns have been received to enable us to predict what the answers to many of these problems probably will be. Many more returns are necessary. A number of banding stations have become interested in trapping starlings. A total of 100,000 starlings banded at widely separated stations in eastern United States would, perhaps, yield sufficient data to solve most of our present problems concerning the species—and quite likely suggest as many more new ones. The goal is one which could readily be reached if a number of banders became interested.

To answer some of the questions presented, it will be necessary to band nestling starlings in considerable numbers. The writer has attempted to band as many young birds as possible during the past four breeding seasons. As yet the number is meagre and the returns disappointing, but continued activity in this direction by interested bird banders should in time be rewarded by some valuable returns.

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