

whistle of a bird, which I at once recognized as the note of a Starling, and soon located it in the top of a dead pine on the edge of a grade. On January 30, two Starlings were noted and on February 17 nine Starlings were feeding in our back yard. The ground was covered with snow, six inches deep, and the temperature was ten degrees above zero. During March from two to four Starlings were seen almost daily in the nearby pines, and seemed very much interested in several Woodpecker holes in a dead pine stub, and on March 27 a pair had selected a hole about 30 feet up, and were carrying nesting material.

Incubation began about April 4, and, on April 28, I first noticed the male bird carrying food to the nest. Both birds took their turn at incubating. The male bird seemed to do all the feeding, until the young were old enough for the mother to leave them, then the duty of feeding the young was turned over to her and all he did was to fly back and forth or sit in the top of a dead pine and whistle, chatter, and flap his wings, somewhat after the manner of the Boat-tailed Grackle. A second brood was raised in another hole about 50 feet up, and on June 2 the old birds were feeding the young. On June 25, about nine o'clock, two young birds left the nest, and were led out of the grove by the old birds, and over the fields out of sight. The flight started right from the nesting hole. During all of the fall, Starlings would gather in a dead pine, on the edge of the grove, within 80 ft. of our back door, about two hours before dark, and remain until time to go to roost. I have been unable to locate their roosting place, as they flew over the river, and out of sight over the city of Norfolk. They did not gather in the pine in a flock but came singly, by twos or several at a time. They seem to gather to have a good sociable time, before bed time, to judge from the chattering, whistling, and mocking of other bird notes and calls. The largest flock noted was on the evening of October 31, when 32 were in the pine at one time. It might be of interest to state that a pair of Sparrow Hawks had selected a nest place in a hole at the top of the same pine stub in which the Starlings were nesting, but were so persecuted by a pair of Fish Crows, which had their nest in a live pine close by, that they left the grove.—JOS. E. GOULD, *Campostella Heights, Norfolk, Va.*

Notes on a Sparrow Roost, and the Arrival of the Starling in Wisconsin.—The writer has watched with considerable interest a certain English Sparrow roost near the Zoo in Washington Park, Milwaukee. Sparrows from a large area (their line of flight has been followed a mile and a half in one direction) have roosted the latter part of each summer with large numbers of Robins, Purple Martins and Grackles in a small grove of deciduous trees.

After their companions go south and the leaves fall, the Sparrows normally transfer their roost to a number of small evergreens nearby, which offer considerable shelter from the elements.

Late last fall for some unknown reason Sparrows to the number of a thousand or more started roosting in a number of small maples and elms in the same vicinity, where they perched hundreds to a tree-top, fully exposed to the cold and wind.

The fall and early winter weather was comparatively mild, however, with few cold snaps, and the Sparrows were observed each morning, occupying their exposed roost, apparently suffering little or no loss of life. This seemed rather remarkable considering the sheltered spots usually selected for passing the nights at this season, and proved that sometimes at least, they can stand much exposure. At the same time my friend, Mr. W. I. Lyon, of Waukegon, Illinois informs me that Sparrows died of exposure if left in his traps any considerable length of time.

February brought the first really severe cold, the temperature dropping to twelve degrees below zero some nights, accompanied by a biting wind. It seemed impossible that the Sparrows could endure such weather in their exposed position, and indeed the "roost" started to break up at this time, the sub-zero weather and high winds two weeks later causing the last of them to seek sheltered nooks wherever they could. The bountiful food supply of cracked corn and other grain around the Zoo, to which these Sparrows have access, may account for their extraordinary resistance to the cold, starvation being the greatest enemy they have to fear.

On the morning of February 17, 1923, after a bitterly cold night, the writer picked up a beautifully plumaged male Starling (*Sturnus vulgaris*) from the ground beneath the roost. The close proximity of the Zoological Park suggested the possibility that the bird might have escaped from captivity, although its perfection of beak, feet and plumage indicated that it was a wild bird. Subsequent inquiry brought out the fact that no Starlings had been confined here in recent years.

Additional proof that these birds had really arrived reached us on March 14, when Mr. George W. Paine, of Whitefish Bay, one of Milwaukee's northern suburbs, brought to the Museum another male specimen in perfect plumage.

This bird was captured on the evening of the 12th, as it sought refuge in a woodpile from the violence of the worst blizzard of the season. It died two days later. Like the other, this specimen was much emaciated, apparently unable to stand the hardships to which it was exposed. This is scarcely to be wondered at however for the severe weather of February and early March, when one blizzard followed another, with high winds and deep snow, took a fearful toll of even hardy native species.

These are the first records for Wisconsin and extend the known range of the Starling about three hundred miles from the vicinity of Cleveland, Ohio and Port Stanley, Ontario, the most north westerly points from which the species has been previously reported. These localities are in about the same latitude as Milwaukee and also on the shores of the Great Lakes. The Starling's partiality for the proximity of large bodies of water, as indicated by its spread on the Atlantic coast, may also attract it to our shores, and account for its early appearance here.

The fact that Red-winged Blackbirds, in some cases in flocks of considerable size, spent the early winter in southern Wisconsin, may also have some bearing on the Starling's arrival as they are known to wander about together at times.—HERBERT L. STODDARD, *Public Museum, Milwaukee, Wis.*

The Starling (*Sturnus vulgaris*) Breeding at Hatley, Quebec.—

Undoubtedly this is the first recorded instance of the Starling breeding in the Province of Quebec, and perhaps also in the Dominion of Canada. The first bird to invade the village of Hatley was noticed by me at 5.30 p.m. on April 14, 1923. Five days later, I saw it again near the same spot, and then lost sight of it until the 29th. On this latter date, it was in the company of a mate, both birds allowing of a near approach, whilst feeding on the ground in a field at the back of St. James' Cemetery. I visited this spot several times without results, until May 17, when one of the birds was seen to rise off the ground with food in its bill, and fly direct for the spire of St. James' Church. I watched it through my glasses, and noticed that it entered the base of the hollow round wooden ball at the top of the spire (on which a cross once stood), thereby revealing the whereabouts of its home. Poor old English Starling! you never asked to be imported into the United States, but you did well when first visiting Hatley to seek the sanctity of a church, where so far as I am concerned you are immune. Even if I took toll of you, what would it amount to, seeing that you have made up your mind to invade Canada, as will be gathered from the following records, viz.:

1919, St. Catherines, Ont., Mrs. R. W. Leonard, small flock during winter.

1920, Aug. 24, Toronto, Ont., J. H. Fleming, flock of seven.

1921, May 15, Port Stanley, Ont., E. M. S. Dale, three along lake front.

1922, March 11-12, Magog, Que., F. Napier Smith, one (taken).

“ Apr. 19-20, Arnprior, Ont., Chas. Macnamara, one (taken).

“ Port Stanley, Ont., E. M. S. Dale, again reported during the summer.

“ Sept. 29, Wheatley, Ont., W. E. Saunders, three.

“ Oct. 22, Aylmer, Ont., seven.

1923, Feb. 18, London, Ont., E. M. S. Dale, seventeen (several taken).

“ Apr. 14-May 31, Hatley, Que., H. Mousley, two (breeding).

1923, Apr. 21 and later, St. Lambert, Que., L. M. Terrill, three.

St. Lambert the most northerly station so far recorded, is about 325 miles north of New York City, the point of liberation of the Starling in 1890.—HENRY MOUSLEY, *Hatley, Que.*

A Double Song of the Cardinal.—In studying the details of bird songs one frequently finds cases where birds sing notes that are on two distinct pitches. In most cases one pitch is louder than the other or heard only from certain positions, which leads one to suspect that it is merely the effect of overtones. In the summer of 1921, however, I heard