

feathers after 4:00 P. M. August 8, from sundown yesterday to 7:00 P. M. today a total of ninety-two feathers, two being from the tail; August 9, from sundown yesterday until evening today, fifty-four feathers were shed (two being tail feathers); August 10, five of the remaining tail feathers were shed; August 11, the three remaining tail feathers shed; August 12, new feathers were appearing on the crown; August 14, new tail feathers were appearing; September 9, tail feathers all fully grown. In the counting of feathers on August 8 and 9, all were cleaned out the day before so as to get accurate results, and fortunately these were the days when the greatest number of feathers were shed.—OSCAR M. BRYENS, *Three Rivers, Mich.*

BIRD BANDING NEWS

Conducted by W. I. Lyon

A METHOD FOR TRAPPING AND BANDING STARLINGS

BY EDWARD S. THOMAS

In February, 1927, the writer and some friends were returning from a field trip, when, just as the sun was setting, we noticed a large flock of Starlings entering the cupolas of a barn to roost. The experience led us to consider the matter of banding some of the birds. We had read that the Starlings in the old world seem to be peculiarly fascinated by bright lights, and are very frequent victims of lighthouse lights. Would a spotlight serve as a means of capturing them in the cupolas?

A few days later, armed with some bright, focussing flashlights, we ascended to the cupolas by means of an extension ladder, and were delighted to find that we could readily capture the birds. That night we banded forty-eight Starlings. We returned to the same barn the following night and secured twenty-two more. It was significant, however, that all were new birds. There were no repeats.

A number of the more enthusiastic bird lovers of the vicinity, notably Prof. James S. Hine and Charles F. Walker, of the Ohio State Museum, R. W. Franks, Milton B. Trautman, H. W. Walker, and John Thomas, soon joined us in the fascinating work, with the result that before the flocks of Starlings had been broken up for the nesting season, we had banded 881 of them. We visited eight barns in all. Our record haul was 265 on February 26 in the barn of Mr. Claude Meeker, ten miles north of Columbus.

Various methods were tried for capturing the birds, including a device for trapping them in the cupolas, but so far, the simplest have proved the best. It was found that Starlings are badly dazed by the bright lights reflected back by the inside of the cupola. Relatively few were intelligent enough to escape through the shutters, and we believe that in most cases we captured easily by hand the greater part of the total population of the barn.

The approved method is to raise an extension ladder, as quietly as possible up to the cupola. Two men then ascend the ladder, the first with a flashlight, the second with a sack for carrying the birds. The first man makes most of the captures and hands them down to the second, who puts the birds in a bag. When he has a sufficient number of Starlings, the bag is lowered to the banders below and a new bag is passed up to him. Grain sacks proved to be the most satis-

factory for bags. We were astonished to find that the Starlings will force their bills through any kind of cloth, in their efforts to escape, and they quickly riddle a bag made of light material. I have never heard of any other bird which will do this.

Six or seven men seem to be the ideal number for the best results: two to ascend the ladder, one to handle the sacks below one to take the birds from the sack and hold them while the band is being affixed, one man to place the bands, and one to put the banded birds in a sack. More than this number of co-operators are desirable if they are well organized; otherwise they are in the road.

Needless to say, it is important that the bands be already arranged numerically, and opened, ready to be affixed. By means of careful preparation and close co-ordination of the workers, we were able on April 12 to capture and band 128 Starlings in the record time of forty minutes.

We found it advisable to place the birds temporarily in sacks after they were banded; otherwise, they would flutter about the barn and into the cupolas and handicap the workers. We found, however, that too many birds should not be placed in one sack. They tend to crowd into a compact mass and are easily smothered. On one occasion we placed the banded birds in some metal brooder houses which happened to be in the barn. Before we realized what was happening, we found that the birds had crowded into a corner of each of the houses, and a number of them were already dead.

It has been our experience that after a barn is raided, the birds promptly desert it and do not return. Although we secured nine repeats, none were in the same barn in which they were banded. The small number of repeats out of 881 banded birds may indicate that most of the birds leave the neighborhood entirely after being banded.

We believe that the banding of the Starling may result in some interesting and important results. The country is witnessing the rapid spread of a new species over a large territory, a thing which has happened but once before in our history. It would be of great value, it seems to us, if we could secure an insight into their method of dispersal. Are the pioneers composed of the young birds? Do the adults remain stationary? Or do the adults also join in the migratory extension of the species?

Do the wintering birds nest in this vicinity? How extensive are their migratory habits? Are their migratory movements regular, like those of our native birds? These and a dozen other questions may be answered by means of banding.

In addition, it is altogether possible that in the near future it may be necessary to attempt to control the numbers of the Starlings. A knowledge of their movements is one of the first steps in the study of their control.

To secure results, a large number of co-operators throughout the country is necessary. The banding in winter should be supplemented by trapping at the nest—something which we had planned for last summer, but which, because of press of other matters, we were compelled to omit.

In closing, I might state that early this fall we tried the same method on mixed flocks of Starlings, Grackles, and Robins, which were roosting in the shade trees in the city of Columbus. For some reason, however, the attempt was a complete failure, the birds flying away before we could climb within reach.

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