

is to approach their domains with caution and try to make one's self an invisible or fixed part of the landscape. Thus, all unconscious of our presence, the Florida Gallinule, and the Sora and Virginia Rails have brought their broods of chicks within six feet.

We found seventeen species nesting in and on the border of this marsh in 1923. The Red-winged Blackbird was first in numbers and the Yellow Warbler second, the latter with six nests. But one pair of Long-billed Marsh Wrens was noted that year. There were three pairs of Florida Gallinules, and they seemed to have fixed boundaries. No trespassing on their territory by the other pairs was permitted. There was much trouble between the rails. The three pairs of Sora Rails kept to the east border and the two pairs of Virginia Rails to the west border. If a Virginia Rail was found near the east border he was immediately chased back with loud vociferations that we could not understand, but were well assured by the manner of voice that they were profane. The two pairs of Least Bitterns nested in the taller cat-tails near the center of the marsh, and seemed to be on friendly terms with both the Rails and Gallinules. A pair of Coots was on the marsh up to the 28th of May. We had some suspicions that they would nest, but on our next visit to the marsh, in the latter part of August, we could not find them.

The migration record for 1923 follows: The Florida Gallinule was first noted on April 19; the Virginia Rail on April 27; the Sora Rail on April 26; the Least Bittern on May 13; and the Long-billed Marsh Wren on May 6. The Bittern and Long-billed Marsh Wren were probably on the marsh at an earlier date. I was in Tuscarawas County from April 28 to May 5, 1923.—CHARLES R. WALLACE, *Delaware, Ohio*.

Notes on an Injured Vesper Sparrow in Captivity.—On about the first of August, 1924, while riding in an auto on some cut-over lands, I observed a bird in a very unusual action. It appeared as if it was tied to a certain place, such as is done at times with certain domestic animals when they are staked out to pasture. I thought at first that the bird might have flown against something in its effort to get away from the auto, so as soon as the auto was stopped I got out and caught the bird. It proved to be a Vesper Sparrow (*Pooecetes gramineus gramineus*).

Being interested in bird-banding, I banded it and let it go, but found that it had not gained any strength in flight. On re-examining the bird I found the cause of its being so weak in flight was that half of its right wing was missing. It could not fly over two feet. The bird was fortunate in not having been caught by some enemy, for the wing was entirely healed over. I removed the band and wrote to the Biological Survey about it. In reply, Dr. A. K. Fisher wrote that if I was not able to care for it, it had better be killed. My desire was to keep it and find out something about the bird, which I did.

The place in which the crippled Vesper Sparrow was at first kept was a common canary cage. Later in the fall a box was made, with the cage inserted in one end. Perches were put in both the box and cage, and were used very much by the bird. But for roosting at night it preferred the chaff, and deserted the perches with the exception of a few times.

One of the first things that I did, was to get the Vesper Sparrow to take insects from the hand, which it did on my first attempt. Grasshopper nymphs

were the chief insect food given to it at that time. Three of these grasshopper nymphs were a meal, and each meal was eaten on the average about ten minutes apart. It was also very fond of cabbage worms, cut-worms, and other leaf-eating caterpillars, as well as flies, but spiders were not a part of its diet. Crickets were very well liked. At different times I caught flies and put them inside its home, at times some of them being alive, and the bird had much exercise in catching them. On days when I had considerable spare time, I caught many house flies to find out how many it would eat in a day. The greatest number was 201, on July 1, 1925. This bird was a male, and at times during July, instead of eating the fly at once, it would go around with it as if it were to feed some young birds. On a few occasions I saw it with dried grasses in its bill as if it was interested in nest-building. These notes on the food consumed by the Vesper Sparrow, give an idea of the value of the species on the farm in destroying insect pests, and their meals would be much greater if they had their freedom than in a case like this.

In the place where the Vesper Sparrow was kept, sand that would go through a window screen was put in for it. This I would generally pour into the cage so as to make a pile with a peak to it. I seldom got away from pouring in the sand before the Vesper Sparrow would hop down upon the pile and begin jumping, back and forth quickly, until it had made a neat little hollow. Then it would begin dusting. The sand was put in only at one end. In the other end sod was placed and sprinkled at times with water, and often chaff from under the manger was put on this. The Vesper Sparrow did much searching when new sod would be put in.

In regard to its roosting, it would generally begin making a place in the chaff a little before sundown. This would be a small place scratched out to fit its body, and there it would almost always be until morning. Once in a while it would roost on a perch. The bird delighted in seeds of timothy and various weeds that were put in for it. Much of the time it would scratch in the chaff, searching for the seeds that were to be found in it.

A dish with water was kept in the cage, near the top, for if placed on the bottom it would soon be covered over with chaff by the bird in its search for seeds. Bathing was a chief duty of the bird nearly every day, and sometimes it would hop down upon the sand and dust, at once, after bathing.

Within a few nights after the Vesper Sparrow was captured, it sang a song altogether different from its common song in summer, and on a low tone. It was not heard singing its usual song until in February, 1925. After that it was heard every day until August 8, 1925, after which it was to be heard much less, and generally on a low tone. I did not hear it sing its usual song after that. It died about April 1, 1926, I think on account of a lack of its more natural food, which was not being given to it, because it was not easy to get and I was away for a few months before its death.

This bird had passed the stage of molting when it was captured, there being only a few feathers that were not entirely grown out. In 1925 it first began molting on July 26, when a secondary was shed. The molting season lasted until about the middle of August. The following are some notes which I kept of this Vesper Sparrow's molt: August 6, secondaries and others dropped; August 7, two tertials, some feathers from the back and underparts and seven

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-