

an early stage of development, as the vanes were just beginning to emerge from their sheaths. The moult had evidently been completed in the other wing, and careful examination of all other tracts failed to disclose any evidence of the process. The plumage elsewhere was fresh as though recently acquired.—WENDELL P. SMITH.

A Song Sparrow Return-4.—On September 25, 1930, Song Sparrow (*Melospiza m. Melodia*) No. A9211 returned for the fourth time. This bird was banded on April 4, 1925, and returned April 28, 1926; August 19, 1927; and April 21, 1929. This bird is nearly six and a half years old at least.—WENDELL P. SMITH, Wells River, Vermont, October 3, 1930.

Banding Starlings.—Owing to the rapid increase of the Starling (*Sturnus vulgaris*) particularly in the Middle West and Southwest, it is very desirable that as many as possible of this species be banded. Full knowledge of their migratory habits, which seem to be developing, will make future control effective. Perhaps the easiest way to capture these birds is when they crowd close together during the coldest weather in ventilating-towers of buildings, church steeples, and barns. By using a strong flashlight twenty-five or more may be captured at a time by hand and placed temporarily in a grain-sack, to be banded later.

Through the courtesy of Dr. Eugene Walker, Superintendent of Lakeside Hospital of the University Hospitals of Cleveland, the writer, together with Dr. John A. Brady, of Lakewood, banded more than a hundred of the Starlings roosting in the ventilating-towers of the hospital buildings during the winter of 1929-1930. The greatest number at the roost was estimated at 2100.—E. C. HOFFMAN, 1041 Forest Cliff Drive, Lakewood, Ohio.

Wing Injury.—On the last page of the July, 1929, number of the *Bulletin*, I stated in a letter to the Editor that I had had some trouble with apparent wing injury to birds while held in the hand, and that I had never known such birds to recover their power of flight. I am now glad to instance four definite cases in which, following the type of injury there described, I have retaken birds which had apparently fully recovered:

Black and White Warbler B32903, banded August 27, 1929, and apparently unable to fly when released, repeated September 12th and was then able to fly.

Towhee 582923, banded January 25, 1929, and unable to fly either when released or three days later, was retaken as a return January 18, 1930, at which time it was apparently perfectly normal.

Towhee A203971, banded January 3, 1930, went off on the ground, and was still unable to fly on January 20th. On February 18th, however, it was noted as being in good condition.

A recent example is that of a Song Sparrow banded August 16, 1930. This bird did not get its wings free in the way which I indicated in my letter of 1929 might cause the injury in question, but probably got just enough clearance to be able to press the wings back with a convulsive effort against my hand. I was conscious of the slight snap mentioned in my description of the trouble, and the bird went off on the ground. On August 18th this bird repeated and was still unable to fly. On August 23d it flew, though apparently with some effort, but on the 25th and 26th and on one or two subsequent dates it has acted perfectly normally. Thus it would appear that the injury in question is one which, at least in a substantial number of cases, is overcome, though in the meantime the bird

is to a greater extent than normally exposed to the attacks of its enemies. From the experiences of the past year or more, I am satisfied that this injury to the wing, whatever may be its explanation, can be wholly avoided by holding the wings close to the body in their normal position during the entire time in which the bird remains in the bander's hand.—WILLIAM P. WHARTON.

Repeating White-throats.—Although I have become an active bird-bander, I hardly feel as though I knew much about it. In banding over 925 birds of 27 species during the past year, and being on the constant lookout for birds showing marked individuality, none aroused more interest than an adult female White-throated Sparrow that came to one of three rather closely situated traps over a period of ten days with a persistency that is difficult to explain. Perhaps the over-development of the trap habit in a bird may be termed a "trap complex." The banding date of this White-throat (No. B109968), captured in a Government sparrow-trap, was October 5th. It was not present on the 6th. On the 7th it was recaptured twice, on the 8th six times, on the 9th four times, on the 10th five times, twice on the 11th, twice on the 12th, five times on the 13th, five times on the 14th, and finally, three times on the 15th. I have never before experienced this, although to-day another White-throat that made its initial appearance, an immature female, repeated *eight* times!—MAURICE BROWN, Lenox, Massachusetts.

Variations in Towhee Irises and Rectrices.—During the winters of 1929 and 1930 in Summerville, South Carolina, further record was kept of both of the Towhees with reference to the following characters: (1) color of the iris, and (2) number of tail-feathers on each side tipped with white.

In the case of those identified as Towhees (*Pipilo e. erythrophthalmus*), 99 of which were banded, 44 had irises described as blood red, 38 irises described as reddish brown, 8 irises as brown, and 4 as light reddish. The tail-feathers were noted in the cases of 92 of these birds, 67 of which had 3 white-tipped feathers on each side, 22 had 4 feathers, 2 had 5, and one bird was recorded as having only 2 feathers thus tipped. The bird last mentioned had the rather unusual combination of a dark-brown iris and only 2 white-tipped tail-feathers, which made its classification somewhat difficult. Probably the depth of brown of the iris, possibly combined with a greater amount of white in the plumage other than the tail, decided the classification made. The combination of brown iris and 4 white-tipped tail-feathers, while less noteworthy, was seen in only two instances.

In the case of those identified as White-eyed Towhees (*Pipilo e. alleni*), 38 of which were banded, 3 had pure white irises, 17 had light yellow ones, 7 straw-colored, 1 orange, and 10 light brown. In the matter of tail-feathers 12 had 2 on each side white-tipped, 24 had 3, and one had 4. This last bird had a straw-colored iris, making a combination as unusual as that of the dark-brown iris and 2 tipped feathers mentioned above in the case of the presumed Towhee. One bird with a light-brown iris and 3 tail-feathers with very slight white tips, was called a White-eyed Towhee because of the lightness of the brown iris.

The foregoing record, while it proves nothing, serves to indicate the wide variations within the species and the sub-species of the characters mentioned. Despite efforts to interest permanent residents of Summerville in close observation of the birds found there during the summer, with a view to ascertaining if any with red, reddish, or very dark brown eyes remain there, thus far as least I have been unable to get any information