

GENERAL NOTES

Georgia-Banded Chimney Swift Nests in Ontario.—On October 11, 1936, I banded 6,025 Chimney Swifts from one chimney of a school building in Atlanta. Among the 44 returns received from these birds, the most interesting is that of number 37-30249, which was caught on June 24, 1937, and again on June 3, 1938, by Roy B. Wilson on his farm near Sundridge, Ontario (about 140 miles directly north of Toronto). Mr. Wilson reported that this bird nested inside his granary in 1937 and inside his woodshed in 1938. He could not find it during the summer of 1939. Other farmers in the same locality report that a few Swifts nest in unused chimneys each summer.

Chimney Swift number 37-32898 from the same banding lot at Atlanta was reported as nesting in a chimney at Dawsonville, Georgia, (about 50 miles northward from Atlanta) on June 9, 1939, by T. H. George. Other returns indicate that some of the 6,025 Swifts nested in almost all the intervening States between these most northerly and most southerly localities.—HAROLD S. PETERS, U. S. Biological Survey, Charleston, S. C.

A Warning to Chimney Swift Banders.—On August 31, 1939, I set a trap for Chimney Swifts on a church at Chester, Pa. The trap was made according to specifications on pages 54 to 57 in the *Manual for Bird Banders* (Lincoln and Baldwin, U. S. Dept. Agriculture, Misc. Publ. No. 58, Nov., 1929). The gathering cage was 2 feet high and about 15 inches square, which slightly exceeds the prescribed dimensions.

When I arrived in Chester the next morning about 9 o'clock, I found that I had trapped a large flock of birds and that a number of individuals had been smothered by the weight of those above them in the cage. It is the purpose of this note to explain how I could have avoided causing these fatalities, in the hope that other bird banders, working with large numbers of Swifts, may profit by my unhappy experience.

In the *Manual* Lincoln and Baldwin say: "Guard carefully against overcrowding in the cages, as this may smother many birds."

Harold S. Peters, in his article on "Chimney Swift Banding in Alabama During the Fall of 1936" (*Bird Banding*, 8: 16-24) says:

"The flow of birds was shut off by the simple process of throwing a blanket over the screen on the top of the trap thereby darkening the chimney and keeping the other birds quiet until the blanket was removed and the birds were again started by pounding on the chimney. During the handling of 6,025 birds at Atlanta we filled our large gathering cage four times by this method and experienced no difficulty with birds smothering in the cage. In earlier banding before this technique was developed we had some difficulty with the birds coming out in too large numbers."

The gathering cages he used were 4½ feet high, 3 feet wide, and 2 feet deep, that is, they had a volume of 27 cubic feet and a side-wall area, for clinging birds, of 45 square feet. In these spacious compartments he successfully handled 1500 birds at one time.

My gathering cage has a volume of 3½ cubic feet and a side-wall clinging area of ten square feet, and in the past I have successfully handled up to 200 birds in it, with every reason to suppose that many more could have been accommodated safely.

I believe that no bander with the minimum standard size gathering cage, as given in the *Manual* (volume two cubic feet; side-wall area eight square feet), need be afraid of trapping 350 to 400 birds at a time in it, for although there is not enough side-wall clinging area for this large a number, the birds reaching the cage after the walls are covered will cling to the backs of those already there, forming tiers several birds deep. This seems not to injure or inconvenience any of them.

But after the birds are about three deep against the walls of the cage, a further influx becomes serious. The newcomers still attempt to cling to the backs of other

birds, and the mass begins to weaken. Numbers lose their foothold and fall to the bottom of the cage. They fly up in a new attempt to cling, but only slide off again, and as still more birds enter the cage, the group at the bottom becomes so deep that the lower ones can rise no longer.

If more birds enter, even after this point is reached, the birds clinging to the sides in the lower part of the cage begin to feel the effects of pressure from the mass of birds which is building up in the center of the cage. Deaths result then from two causes: at the center of the mass there is asphyxia, while at the lower periphery there is mechanical obstruction to the respiratory movements. The latter cause is undoubtedly a slower one and will be avoided if the bander is on hand soon after the birds have entered the cage.

I want to give warning against complete reliance on Peters' suggestion of using a blanket to regulate the flow of birds into the trap, for I believe there are times when that procedure may be impractical. I wish also to suggest an alternative method which should accomplish the desired end at all times.

My past experiences with Chimney Swifts have consistently shown that if the trap is placed on the chimney after dark at night, the birds will not emerge until the following morning. On cloudy mornings, in fact, they may not emerge at all, but must be frightened out by a noise in the lower part of the chimney.

But in the present case it was a moonlight night, and the birds began to emerge even while I sat on the chimney top arranging the trap in its set position. Had I then thrown a blanket over the trap—at 10 P.M.—might not the Swifts have been smothered in the chimney by morning. If so, might they not *all* have been smothered?

Whether this is a real possibility or not, it has occurred to me that an unquestionably safe method of restraining the birds would be to cover the opening of the chimney with an adjustable window screen. This mechanism could better still be built into the floor of the trap itself. It should be selected to coincide in its fixed dimension with the width of the trap, one section being firmly screwed down to the rear end of the trap's opening, and the moveable section then being controlled by the operator by a pair of light strings which pulled it forward or backward. Thus the aperture could be closed or opened at will from a point as remote as seemed desirable in each case.

Traps set on moonlight nights, then, should be left with the aperture closed until the operator's arrival in the morning. It might be wiser to keep the aperture closed under *all* circumstances, for the factor of moonlight may not have been the only contributing one in this instance. When there is a large number of birds in the chimney, a few excitable individuals might set the rest in motion, and they might try to escape from the chimney in total darkness.

I cannot tell how many of my birds entered the trap that night. There were about 100 already in the gathering cage when I descended from the roof, and they were all in it when I arrived on the scene next day. Certainly the mortality would have been lower if I had allowed none to enter until I was on hand to begin banding operations. And the mortality would have been zero if I had used the foregoing device to limit the number of birds in the cage at one time to 400 or 500.—C. BROOKE WORTH, The Rockefeller Institute for Medical Research, Department of Animal and Plant Pathology, Princeton, New Jersey.