

THE INSECT NET AS A TOOL OF THE BIRD BANDER

BY RICHARD B. FISCHER

DURING the summer of 1940 I had occasion to take a course in field zoology, and included in the equipment for the course was an insect net. I believe it was purchased from Ward's Natural Science Establishment for the price of one dollar and twenty-five cents. Next to my traps, this net has become my most valued piece of bird-banding equipment.

Prior to acquiring this net, I had discovered that it was a simple matter to capture Barn Swallows (*Hirundo erythrogaster*) at night if one used a long-handled net and a three or five-celled flashlight. I used a trout landing net lashed to a long, light pole, and secured a number of adult birds in the summer of 1939 and in June of 1940. The landing net was good—I think I caught more birds than trout with it—but the insect net proved to be infinitely better. For one thing, its sac is thirty-seven inches deep, whereas the trout net has a depth of only fourteen inches. This deeper sac has one especially desirable advantage over a shallow one; namely, it is possible to catch two, three, and even four Barn Swallows at a time with it. While capturing swallows at night in a barn, I have often been up in the gable, hanging on with one hand and wielding the net with the other. Now climbing up into the gable of a barn is at best a tiring and time-wasting procedure, hence one would try to net as many birds as possible before having to climb down to place them in the gathering cage. By having a deep sac, however, you can capture one swallow and then turn the sac on the net handle a few times, thus preventing the bird from escaping. When another bird approaches (attracted by your light) wait until it is within reach. Then untwist the net quickly, catch the bird, and close the net as before. The bander must expect to lose some birds at first, but a little practice will make one very proficient in manipulating the net.

Another good feature of the insect net is its larger mouth (twelve and one-half inches across), with advantages of size which are self-evident. The much finer mesh prevents birds from becoming entangled in it (formerly requiring that a bird be cut out) and, in addition, prevents the escape of the larger ectoparasites. Its ample handle gives one a reach of almost six feet. Lastly, it is stronger for its weight than the heavier trout net.

In addition to catching swallows at night with it, the insect net is very useful for capturing birds nesting in boxes or crannies in buildings. By watching the parents as they carry food to their young, one can determine about how much time the birds spend at the nest. If the bander is careful, he may approach quite close without arousing the suspicions of the parents. Having determined

how much time is available, the bander may be able to sneak up to the nest and slip the net over the box (or across the face of the cranny), or he may have to run up and use his net speedily and deftly. When it is possible to do so, the nest should be approached from behind, for then the bird cannot see you coming, and it is much less likely to hear you. By using this method, I have captured many adult House Wrens (*Troglodytes a. ædon*), and one pair of Bluebirds (*Sialia s. sialis*), in addition to several species of swallows.

Occasionally a bird will refuse to come out of a house after the net has been placed over it; I had a great deal of trouble with the Bluebirds, especially the female. Since the net has such a large opening, it may be slipped over one-half of the house with, of course the front of the house facing the bottom of the sac. The bander is then free to leave it hanging there till the bird decides to emerge, or he may tap on the back of the box thus frightening it out. Which-ever method is used, it is best to draw the net sac out on a horizontal plane so that the emerging bird goes to the bottom of the sac. Unless this is done many birds will escape. Furthermore, it is advisable that one close his hand around the sac, behind the bird, as soon as possible. Should a hole be torn in the net while in the field, it can be closed merely by tying a knot in the particular region of the sac in which the hole is located.

Most bird banders have at some time or other stared into a small bush at a parent bird on its nest. Though the sitting bird was only inches away, it was never possible to reach in and catch it. I have found that it is possible to capture a good proportion of these incubating or brooding birds with the insect net. The method is simple. By standing on the same side of the bush during several flushings of the sitting bird, it will be noticed that the bird usually leaves by the same route each time. When once you know at which point in the bush the bird makes its exit, approach the sitting bird cautiously, taking care that it sees as little of your net as possible. When close enough, raise the net so that it "covers" or rather blocks the exit, at the same time suddenly shaking the branches behind the bird. This operation must be done very quickly, and timed so that the net reaches the exit a fraction after you have frightened the sitting bird. The bird does not expect its egress to be blocked, so it travels the route that it is accustomed to use when leaving the nest. During that brief interval after the bird has flushed, your free hand, the nest, and the net should all be in a straight line. If the operation is done correctly, the fleeing bird will almost always fly into the net. Like catching the fourth Barn Swallow with three already in the net, this is a procedure which requires practice. Capturing birds by this method is especially time-saving when it is desired to catch a bird at a distance from one's station without having to wait for it to enter a trap.

In addition to being a valuable tool for catching birds, the insect net is especially helpful in capturing the parasitic flies which live on the birds. These Hippoboscidae, as they are called, are difficult to catch because they are apparently able to detect the presence of your hand, and soon fly off the bird. I was anxious to secure some of these elusive little creatures, and was advised to ruffle a captured bird's feathers before a closed window. The flies would go to the window where they could easily be caught. This method worked well when there were still some flies on the bird, but I discovered that most or all of the insects had escaped before I could reach a window. On June 18, 1941, I discovered what I believe to be the most efficient method of securing these Hippoboscid flies. I had just released an adult female Song Sparrow (*Melospiza m. melodia*), captured by the method described above, when something prompted me to examine the net for parasites. I held the sac up against the sky, and was delighted to discover a Hippoboscid in it. This gave me an idea.

A few hours later I caught a young Catbird (*Dumetella carolinensis*) which had just left the nest and which was rather heavily parasitized by Hippoboscidae. Several flies escaped before I thrust the bird into the net, but by allowing this bird to flutter about in the closed sac, the remaining flies left the bird and were imprisoned in the net. A few drops of alcohol from the specimen vial were poured on the insects, thus incapacitating them so that they could be transferred to the vial without fear of their escaping. A few minutes later I captured a young Robin (*Turdus m. migratorius*) which I immediately dropped into the net. Two flies came off the bird and were secured as before. This is apparently the best way to capture these insects, for they have practically no chance to escape.

A final though less important use of such a net is as a cage for young birds. There are times afield when it is desirable to band a number of young or juvenile birds all at one time. At such times it is not usually convenient to carry a gathering cage, but the net will be found to serve almost as well.

These are some of the ways in which the insect net has proved to be useful as a tool of the bird bander. Those who make a habit of carrying one with them in the field, as I do, will undoubtedly discover other applications for it.

140-19 Beech Ave., Flushing, New York.