

A predator-decoy method for capturing insectivorous birds.—Field studies of insectivorous birds are frequently hampered by the difficulty of capturing and marking birds which forage at high levels. In the course of our work with the Blue-gray Gnatcatcher, *Poliophtila caerulea* (Root, MS), and the American Redstart, *Setophaga ruticilla* (Yarrow, MS), we developed a relatively successful procedure for capturing members of breeding pairs.

A mist net was set up within 150 feet of an active nest and a stuffed Screech Owl (*Otus asio*) was positioned on a stake about a foot from its center. The most suitable net locations were where the trees furnished shade and where the birds could observe the owl closely only if they used perches within a few feet of the ground. Gnatcatchers were attracted to the nets by playing back a tape recording of their own predator mobbing calls (these having been obtained previously when an owl was placed closer to the nest). The redstarts were usually attracted by the mobbing calls of other species which we had drawn to the decoy by "squeaking." We also "led" the redstarts to the net, after they had responded to an owl that had been held near the nest briefly.

Several species other than gnatcatchers and warblers were usually present in the mobs that formed. Typically the birds approached the decoy slowly and did not make aerial attacks at the owl until they had circled the immediate area for a short period. During this approach the insectivorous species seemed to detect the presence of even the most well concealed nets, e.g., this even occurred in the near darkness preceding sunrise. Only one gnatcatcher "blundered" directly into the net while the owl was in position; this bird had just arrived to join the mob already engaged in scolding and attacking the decoy. When attacking, the birds flew directly to snap at the owl's head and then hovered or flew steeply upward to escape entanglement in the net. These birds usually escaped the net by similar maneuvers when we attempted to drive them (only two gnatcatchers were captured in this manner). Black-capped Chickadees (*Parus atricapillus*), Catbirds (*Dumetella carolinensis*), Wood Thrushes (*Hylocichla mustelina*), and Song Sparrows (*Melospiza melodia*) flew into the net when the warblers were able to avoid it.

However, most of the warblers and gnatcatchers were captured a few minutes after the owl was suddenly removed (we simply covered it with a cloth and carried it away from the net). Individuals that had repeatedly avoided the net, and had been obviously aware of its location during the preceding 10 to 15 minutes, flew headlong into the net at this time. Best results were obtained when the decoy was removed at a time when mobbing was at a high intensity (see R. Hinde, *Proc. Roy. Soc. London*, Ser. B, 142: 329, 1954).

It is not clear why the birds fly into the net much more frequently after the owl is removed. The birds' response to the sudden disappearance of the owl was observed closely on several occasions when the net had not been set up. In all cases the birds approached closely to examine the stake or spot where the owl had been placed. Frequently they flew in from a greater distance than they had when attacking the owl. Perhaps this provided them with a greater momentum that carried them into the net. The sudden disappearance of the predator also may have caused the birds to search more intensively, with the result that their "awareness" of surrounding objects, such as the net, was decreased.

In the species we studied, only adults with well established nests engaged in intense mobbing of the decoy for a prolonged period. We captured at least one member of such pairs on more than half of the occasions that we set up a net, and the efficiency could probably have been improved if additional nets had been placed near the decoy. Each net was kept in place for only about 30 minutes because we rarely caught birds

whose initial response had not been vigorous and the intensity of response seemed to wane after this period (see Hinde, *op. cit.*).

The predator-decoy method presents some advantages over the use of nest traps and hoop nets (see V. Nolan, *Auk*, 78: 643-645, 1961) when nests are difficult to reach or when it is important to avoid disturbing the immediate area surrounding the nest. Judging from the behavior of the several species that were attracted to the mobs at our decoys, we think the method could easily be adapted for the capture of a large variety of species by playing back the appropriate mobbing calls and placing the nets near active nests.—RICHARD B. ROOT and RUTH M. YARROW, *Department of Entomology and Limnology, Cornell University, Ithaca, New York.*

Fulvous Tree Duck observed in the southern Sargasso Sea.—The Fulvous Tree Duck, *Dendrocygna bicolor*, is currently extending its wintering range in the eastern United States (H. L. Jones, *Chat*, 30: 4-7, 1966). It has also become more frequent on islands in the Caribbean and in the Bahamas (J. Bond, *Ninth and Tenth supplements to the check-list of birds of the West Indies*, Acad. Nat. Sci., Philadelphia, 1964, 1965) and on Bermuda (David Wingate, *in litt.*, 27 November 1964). Bond (1965, *supra*, p. 6) suggested that the Antillean peregrinations of this duck apparently stem from the northern population known as "*D. b. helva*," which he is unable to distinguish from the nominate race.

There are no published records of this fresh-water duck at sea. Thus, it was with interest that I watched three individuals that were swimming about in the Sargasso Sea, at 0630 hours, 25 October 1964. I was aboard the "Atlantis II" which was on station at about 23° 03' N lat. and 60° 00' W long. On this and the previous day, the sky was clear with only scattered high clouds, the wind was light and from the south-southeast, and the sea was calm to slightly rippled.

The birds were dabbling their bills in the disturbed water around a hydrographic wire then in use. I was unable to ascertain what they might have been feeding on. Sargasso weed (*Sargassum* spp.) was seen nearby but was not abundant. The birds flew off and settled on the surface 200 yards away. After one-half hour, they returned, whistling in flight, to the ship and landed 10 yards away. Again they dabbled their bills in the water. It would have been impossible to recover a specimen, so I made no attempt to collect one.

Examination of the skull of *Dendrocygna bicolor* revealed that the birds have small salt glands in the interorbital region rather than having pronounced glands which are characteristic of ducks living in marine environments. Presumably then, the species is not adapted for coping with a large intake of salt in its diet, and this probably accounts for the lack of marine records of the species.

This observation of Fulvous Tree Ducks at sea suggests that the birds might cross considerable stretches of open water by intermittently resting on the surface. The puzzling pantropical distribution of this monotypic species (which is found in North, Central, and South America, Africa, and Southeast Asia) has sometimes been explained by assuming that birds regularly cross the oceans. This observation would lend some credence to that theory.

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