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A TECHNIQUE FOR BANDING WOODCOCK

By HOWARD L. MENDALL

Assistant Project Leader
Maine Cooperative Wildlife Station, Orono, Maine

As one of the projects of the Maine Cooperative Wildlife Station,¹ studies are being carried on relative to the management of the American Woodcock, *Philohela minor*. Pettingill's extensive life history of this species (1936—Memoirs Boston Society of Natural History, 9:2) has rendered unnecessary much of the preliminary research that must precede management practices. Nevertheless, a certain amount of such data still remains to be gathered, including information on movements and migratory habits, longevity, tendencies to return to the original breeding area, and plumage changes. Solutions to these problems will be facilitated through banding operations; consequently efforts were made during the spring of 1937 to mark as many individual birds as possible.

Although we are securing data from the entire State, most of our field research is being conducted on or in the vicinity of the Moosehorn Migratory Bird Refuge of the Biological Survey, located near Calais in Washington County, the northeasternmost portion of the State. This is an admirable location for such work since Maine is the most important Woodcock producing state in the country and the birds are especially common in Washington County. Moreover, the Moosehorn Refuge lies in the path of the principal flight lane to and from Nova Scotia and New Brunswick.

Dr. Gustav Swanson of the University of Minnesota, who was formerly in charge of the Woodcock studies here, tried several different banding methods in attempting to arrive at a technique suitable for conditions in Maine and it may be of interest to mention them at this time.

One method was that practiced by L. J. Merovka, Federal game

¹ Established through a cooperative agreement between the University of Maine, the State Department of Inland Fisheries and Game, the American Wildlife Institute, and the United States Biological Survey.

protector in Louisiana, who had some success in banding adult Woodcock on their wintering grounds through the use of a strong jacklight and a landing net. This procedure was attempted in Maine but resulted in complete failure. It should be pointed out that the birds are very much scattered on their breeding grounds, whereas they exhibit considerable concentration in the desirable covers during winter, and Merovka reports finding as many as forty birds in a single twenty-acre field. Attempts were also made, by this method, to trap males on their singing grounds but, since it is during the period of twilight that most of the courtship activity is carried on, the birds were not sufficiently blinded by the light to allow a close approach.

Suggestions had been made that use of a bird-dog in pointing the Woodcock would permit capture by a net. It was found that the cover is usually too thick to enable a long-handled net to be used, while the birds would not allow an approach close enough to capture them with a short-handled one. Exceptions occur if a bird is on a nest, when it may be readily secured by this method. However, its fright is usually so great that it may either break the eggs in struggling to free itself or desert them later. This statement is verified both from the work in Maine and from experiences of other observers as related in letters from our files.

A method suggested by Pettingill, and explained in his paper, is to erect a low fence around the nest prior to hatching of the eggs. The enclosure, if about six inches high, would be such that the adult could easily hop over it yet would retain the juveniles until they could be banded. One attempt was made at tagging young by such means, but the adult abandoned the brood the morning after the eggs had hatched.

One technique, however, proved highly successful and resulted in banding 83 juveniles, between May 9th and June 15th. A well-trained dog was used in locating the young after they had left the nest and before flying ability had been acquired, which is at about fourteen or fifteen days of age. The need for a dog in such work is clearly shown from data on movements of the female and her brood, as several instances were recorded of birds only one and two days old that had travelled twenty to twenty-five yards from the nest. Since the adult with a brood behaves in much the same fashion as does an incubating bird, and exhibits even more injury-feigning, it is usually apparent, when a bird is flushed, whether or not young are nearby.

Although a dog proved to be the best ally in obtaining young birds for banding, its use should be avoided as a method of locating nests. Several nests were found in this manner during 1937, but in all instances except one the adult deserted the home. On the other hand, when the nests were located by human beings² the

² C. C. C. and W. P. A. crews, of ten men each, supervised by members of our staff, were used in finding the majority of the nests.

incubating bird seldom was unduly alarmed. The Woodcock appears to have a much greater fear of a dog than of a human intruder. Even in locating broods the dog used must be well-trained and carefully chosen, otherwise there will be the probability of its "breaking the point" and catching the adult or one of the young. A long rope, with the free end dragging, should be tied to the collar of the working dog so that when a point is made the animal may be tied immediately, thus preventing its charging forward at sight of the injury-feigning adult. The brood scatters at the alarm notes of the parent but the chicks are usually found without much difficulty.

In conclusion, mention may be made of two retakes that we have made of the birds banded in 1937. These were juveniles from the same brood and were tagged in Baring Township on May 21st with bands numbered 37-320452 and 37-320451. They were killed during the hunting season, when they were about five and one half months of age, and were still in the woods of this township. Although shot on October 27th and 29th respectively, both were taken in the same covert. It is interesting to note that the birds were killed near the end of the open season and at a time when the hunters were almost unanimous in the belief that only so-called "flight" birds from Canada were present.

GULL SURVEY PLANS FOR 1938¹

By ROBERT P. ALLEN AND JOSEPH J. HICKEY

The Cooperative Gull Project participated in last year by the Northeastern Bird-Banding Association and other organizations, will again band young Herring Gulls in colonies ranging from the Gulf of Saint Lawrence to Fisher's Island, New York. At the time of going to press, the 1938 plans are still tentative, but it is hoped that Gulls will be marked in ten colonies. In the proposed schedule below it will be seen that the color combinations differ from those of last season. This is done in order that the age of birds may be known, and obviously will be a means of gaining new and rather exact information on plumage changes, breeding age, etc.

Following are the combinations:

<i>Name of Colony</i>	<i>1937</i>		<i>1938 (Tentative)</i>	
		<i>Other Leg</i>		<i>Other Leg</i>
Razades Islands, P. Q.	Blue Blue Aluminum		Yellow Aluminum	Yellow

¹The organ of the Western Bird-Banding Association, *News From The Bird Banders*, for May, 1938, page 11, reports that the scope of the Alaska to California Cooperative Gull-banding Project for 1938 has been increased by colony banding of Glaucous-winged Gulls (*Larus glaucescens*) at Kodiak Island in Alaska and at three locations on Vancouver Island, British Columbia.—Editor.