

SHOREBIRD-BANDING ON CAPE COD¹

By MAURICE BROWN

DURING the month of August, 1933, much time and effort were spent at the Austin Ornithological Research Station in devising and perfecting improvements in the technique of trapping shorebirds. The results of this work surpassed our best anticipations, and much credit is due Mr. Seth H. Low, a member of the Station's staff, for his skill and industry.

The trapping operations were concentrated on four acres of meadowland, originally a part of a salt meadow but now separated from it by a dyke less than two hundred feet in length. The greater part of the year this spring-fed dyked meadow is flooded by rain and high-course tides. During the summer the amount of water in this meadow, teeming with insects, may be controlled to bring about a brackish, mud-flat condition, which is extremely attractive to shorebirds. The wide expanse of salt marsh, with this excellent feeding-ground, is ideally situated in the path of the migrating waders, many of which, coming down the inside reaches of the Cape, have a tendency, at this point, to swing their flight southeastwards to the extensive Nauset Marsh, a little more than three miles distant.

The type of trap employed in the capture of these birds is a modification of the clover-leaf trap described in the "Manual for Bird Banders," page 27. The three large compartments, standing about three feet high, are made of one-inch-mesh wire. Gathering cages, similar to the ordinary government sparrow-trap, are attached to two of the compartments, while from the entrances of the latter there are extended in various directions long wire leaders, about one foot in height. Adopting the principle of the fish-weir, there is a series of these traps connected more or less by the leaders. No baiting is necessary; the birds alight on the meadow and become absorbed in feeding. Sooner or later they come in contact with a leader, which is followed until presently the unsuspecting birds are entrapped. Other birds than waders taken in the dyked meadow by means of these traps, embrace several species of sparrows, blackbirds, doves, quail, robins, rails, and herons. An immature Little Blue Heron was banded on August 2, 1933.

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Following is the list of fourteen species of shorebirds that were trapped and banded from August 1st to September 16th. On the latter date unusually heavy rains, flooding the entire area to a depth of one to two feet, brought about conditions favorable for attracting and trapping ducks, thus automatically ending shorebird-trapping.

	Number Banded	Repeating Individuals
Semipalmated Plover (<i>Charadrius semipalmatus</i>)	73	12
Ruddy Turnstone (<i>Arenaria interpres morinella</i>)	1	..
Spotted Sandpiper (<i>Actibis macularia</i>)	16	3
Eastern Solitary Sandpiper (<i>Tringa l. solitaria</i>)	5	2
Greater Yellow-legs (<i>Totanus melanoleucus</i>)	8	..
Lesser Yellow-legs (<i>Totanus flavipes</i>)	42	1
Pectoral Sandpiper (<i>Pisobia melanota</i>)	26	7
White-rumped Sandpiper (<i>Pisobia fuscicollis</i>)	25	1
Least Sandpiper (<i>Pisobia minutilla</i>)	219	13
Eastern Dowitcher (<i>Limnodromus g. griseus</i>)	8	1
Stilt Sandpiper (<i>Micropalama himantopus</i>)	13	2
Semipalmated Sandpiper (<i>Ereunetes pusillus</i>)	1895	302
Western Sandpiper (<i>Ereunetes mauri</i>)	76	7
Wilson's Phalarope (<i>Steganopus tricolor</i>)	1	..
Totals	2408	351

In the 47 days of trapping, birds were recorded 2759 times at the rate of 59.6 birds a day. These totals might have been increased but for the fact that during the last week of operations, when the shorebird migration had reached its apex, all workers were kept so busy that, for the sake of saving time, a large number of repeating Semipalmated and Least Sandpipers carrying bright new bands were released unrecorded.

The smaller sandpipers—so-called “peeps”—were trapped readily. I believe that very few peep that ventured on the meadow departed without having been banded. Larger species, however, were wary of the traps. As an illustration of this, on September 4th approximately two hundred fifty Yellow-legs of both species (Lessers predominating) were resting or feeding in the dyke meadow, usually at some distance from the traps. During the entire period of trapping only fifty Yellow-legs were captured.

One of the most interesting features of the migration was the unprecedented numbers of Stilt Sandpipers. Three or four individuals were seen daily, and as many as twelve were counted at one time.

When a Western Sandpiper was taken for the first time, on August 21st, we regarded it as something of a rarity. But several other representatives of this species appeared in rapid

succession. A decided influx occurred on September 5th, when 27 individuals were banded. In the above list, the Western Sandpiper takes third place among the species banded in large numbers. This appears to indicate that this species occurs along the Atlantic coast far more commonly than has been supposed. After a little experience with the Western Sandpipers, we were able at a glance to distinguish them from their paler-colored congeners, the Semipalmated Sandpipers. The perceptibly longer bills, and the rich chestnut markings on the heads and backs are infallible characteristics. Bill measurements taken of 68 Western Sandpipers ranged from .91 inch to 1.2 inch, with an average of 1.1 inch.

On the early evening of August 30th, a day of clear skies and gentle southwesterly winds, an adult male Wilson's Phalarope was banded. There are ten published records of previous occurrences of this species in Massachusetts.

When wholesale trapping of birds is carried on in exposed situations such as exist at our dyked meadow, a certain amount of disturbance, resulting from foraging by birds' enemies is inevitable. Snapping Turtles were responsible for some trouble, although they could not be accused of any serious depredations. On one occasion a sixteen-inch turtle was found in one of the traps. Hawks were the worst offenders. One female Marsh Hawk made periodic sallies over the meadow, hectoring the birds in the traps, and frightening the others away. Several trapped birds were found to have been decapitated by this hawk. Finally, when other expedients failed to drive away this bird, a few discharges of a shot-gun induced it to make a prolonged absence. On several occasions a Pigeon Hawk, a Cooper's Hawk, and Sharp-shinned Hawks were more or less troublesome, but none of them became serious nuisances.

North Eastham, Cape Cod, Massachusetts.