

An Old Warbler.—The Bird Banding Office has reported the finding of a Black and White Warbler (*Mniotilta varia*) at Germantown, Philadelphia, Pa., on or about 21 Sept. 1968. This bird was banded 3 miles northwest of Hillsborough, N. C. on 1 Sept. 1957 by C. H. B. and recorded as a female. It was found by one of J. M. C.'s students who stated that it had been recently killed by flying against a window.—Charles H. Blake, Box 613, Hillsborough, N. C., 27278 and Joseph M. Cadbury, 108 W. Phil Ellena St., Philadelphia, Pa., 19119.

Roseate Tern in Unusual Plumage.—On Great Gull Island, New York, located 7 miles ENE of the northeast tip of Long Island, we are studying a nesting colony of approximately 2200 Roseate Terns (*Sterna dougallii*). Here, on July 7, 1968, we noticed a Roseate Tern in a plumage unlike any we had seen.

The bird was standing on the shore among Roseates in typical breeding plumage. Using 7 x 40 binoculars in a row-boat about 40 feet away from the bird, we made the following observations. The tern had a white forehead, a speckled area on the fore part of the crown, and a black cap. It had a dusky shoulder patch. When it flew toward us, following a Roseate carrying a fish, its outer tail feathers could be clearly seen and appeared to be several inches shorter than those of breeding Roseate adults on the island. In other respects its plumage resembled theirs. A faint trace of red showed at the base of its bill and extended along the side for about 10 mm.

Witherby (*The Handbook of British Birds*. H. F. G. Witherby Ltd., London. 1941. 5: 24-27) gives the most complete description of Roseate plumages we have found. In the Virgin Islands in May 1968 we saw six Roseates closely fitting his description of first year birds. The Great Gull Island tern was decidedly different from these birds.

Haverschmidt (*Ardea*, 45: 176-177, 1957) describes the appearance of second year Common Terns (*Sterna hirundo*) summering in Surinam. We find no descriptions in the literature of second year Roseates, nor any mention of where they are found. To date we have received one banding report on a two year old Roseate. This tern, banded on Great Gull Island in 1966 by Catherine Pessino, was caught by Lt. George Reiger on his fish hook at Ocean City Inlet, Maryland on July 2, 1968.

Although the Roseate Tern seen July 7, 1968 might for some reason have assumed an aberrant plumage, we think it equally possible this was a second year bird that had wandered as far north as Great Gull Island.—Grace Donaldson, Education Department, American Museum of Natural History, New York, N. Y.; and Helen Hays, 14 East 95 St., New York, N. Y.

A Cardinal "divorce."—A male Cardinal (*Richmondia cardinalis*) that I color-banded 21 August 1967 was paired by 17 April 1968 with a color-banded female. Steady association, and 10 observations of courtship feeding in April, May and June, indicated the pairing, although I did not find a nest or see fledglings with either of the birds. The association was maintained through at least 7 February 1969. Then on 15 March I began to see the male feeding a different female, one color-banded just a month earlier, and he continued to do this into 28 March, after which date he was not seen again. Meanwhile his original mate remained about, and at the end of April is still present, with no new mate in evidence. I have had a number of color-banded Cardinal pairs in the past 20 years, but have never before observed a "divorce." By 30 March, incidentally, the second female had paired with another male; on that day she was fed by him, and their association has continued.—Hervey Brackbill, 2620 Poplar Drive, Baltimore, Maryland, 21207.

Reverse mounting by the Red-headed Woodpecker.—Discussing copulatory behavior in "A comparative life-history study of four species of woodpeckers" (Ornithological Monographs No. 5, A. O. U., 1967), Lawrence says (p. 83) that "Insofar as is known, 'reverse mounting,' at least among North American woodpeckers, is specific for the Red-bellied" (*Centurus carolinus*). In Baltimore in 1948 I did some watching of a pair of Red-headed Woodpeckers (*Melanerpes erythrocephalus*) the female of which was color-banded, and once saw these do reverse mounting.

On 7 April at 07:19 from the far side of a slanting limb one of the pair came around to the top of the limb and then I saw the other there. The first sprang onto its mate's back and off again and then was in turn mounted for perhaps a second's

time. During this the birds were not individually identifiable, but after they separated one was seen to be the color-banded female; presumably she was the first mounter. The brevity of the second mounting and the fact that my notes say nothing about a slide down the female's side by the male, as described for this species by Southern (*Auk*, 77: 218-219, 1960), make it seem that there was not effective copulation in this instance.

The behavior is apparently not fixed in the species. This female, identified by her bands, had solicited her mate without first mounting him on 5 April at 07:32, when she herself was mounted for a second or two, and again at 07:54, when the male ignored her. On these April dates the birds had a nest hole apparently almost fully excavated. Possibly because of Starlings (*Sturnus vulgaris*), that hole was abandoned. On 31 May at 18:32 the female flew from a new hole to the male on a branch, seemed to tap his tail with her bill, and then postured; again there was no reverse mounting, and again he failed to respond. By 22 June, however, young were being fed.—Hervey Brackbill, 2620 Poplar Drive, Baltimore, Maryland, 21207.

RECENT LITERATURE

BANDING AND LONGEVITY

(See also 7)

1. What can we learn from ringing? J. M. Winterbottom. 1968. *Bolmakierie*, 20(3): 56.—One sometimes wonders what effect international conferences have upon those attending, particularly if the conference is not in their native language. Clearly, one conference at the German bird-banding headquarters at Radolfzell—which, by the way, is a delightful place for a meeting—had an effect. Professor J. Aschoff, who represents the Radolfzell scheme to the sponsoring Max Planck Society, asked the participants bluntly: what can you learn by banding that you can't learn some other way? Professor Winterbottom communicates some of the answers to his fellow South African ornithologists.

Two general types of phenomena studied through banding are migration and population dynamics. A number of important questions can be asked under the first rubric: (a) where are the breeding grounds? (b) the wintering grounds? (c) how quickly does a bird get from one to the other? (d) along what routes? (e) what is the sociology of migration (individuals, parties, flocks)? (f) are flocks family units or of other composition? (g) do these patterns vary with age? (h) with sex?

The study of population phenomena can similarly be broken into questions, a few of which are: (i) what is the age of first breeding? (j) what is the strength of the pair bond? (k) is a species polygamous, and if so in what way? (l) how is physiological condition (weight and fat) tied to the annual cycle? (m) and what is the mortality rate and its causes?

Every bander should ask himself: am I contributing to the solution of such questions, or am I merely hanging bands? The justification of banding is not how much one bands, but what one learns.—Jack P. Hailman.

2. Breeding, migration and survival of Turtle Doves. R. K. Murton, 1968. *British Birds*, 61(5): 193-212.—This study is a good example of what can be done with the help of nest-reporting cards and bird-banding data in understanding one species' general biology. *Streptopelia turtur* is successfully double-brooded, laying three clutches of two eggs from which three eggs are lost to predators (on the average). Of the young hatched, 82 percent fledged, yielding 39 young for every 100 eggs laid. Success is better in July (48 percent) than in May (34 percent), which correlates with improved food supply in later months. In August the food is still abundant, but parents desert the nests because they "enter an obligatory refractory period of the pituitary gonad mechanism." The ultimate cause is believed to be due to insufficient time for August nestlings and their parents to accumulate fat reserves and other physiological preparedness for the fall migration. The mortality rate among adults is 50 percent per year, higher in