

vicinity of the building, save for its forays to the water, where it was observed several times feeding with the wild gulls of the vicinity.—LEWIS O. SHELLEY, East Westmoreland, New Hampshire.

A Pair of White-breasted Nuthatches Mated for two Winter Seasons.—On October 25, 1937, I trapped a female White-breasted Nuthatch (*Sitta carolinensis*) bearing band 194226. Five days later (October 30, 1937) I trapped a male bearing band 194229. Both of these birds have since repeated several times and are to be seen together almost constantly nearly every day (December 11th).

The female was originally banded by Ralph W. Goodale on November 21, 1936, and five days later (November 26, 1936) he also banded the male bird. Both were banded at his station which is less than a mile distant from my own.

Although the fact that the female preceded the male to the trap by five days in each instance is probably only an interesting coincidence, it is quite evident that we have here two birds which have been closely associated, possibly as mates, for almost a year.—G. HAPGOOD PARKS, 141 Branford Street, Hartford, Connecticut.

RECENT LITERATURE

(Reviews by Margaret M. Nice and Thomas T. McCabe)

The articles have been selected and arranged under subjects of importance to students of the living bird, and also for the purpose of suggesting problems, or aspects of problems, to those banders who wish to make the most of their unique opportunities.

Headings in quotation marks are the exact titles of articles or literal translations of such titles. Except in the case of books, which are always reviewed under their titles, headings not in quotation marks refer to general subjects, or are abbreviated from titles in foreign languages. References to periodicals are given in italics. Reviews by Mr. McCabe are signed with his initials.

MIGRATION STUDIES

"Physiology of the Migration Drive."—Discussion of migratory restlessness in relation to metabolism based on experiments on Whitethroats (*Sylvia communis*) and Redbreasts (*Erithacus rubecula*) in Breslau. The author believes the migratory urge is due to increased thyroid secretion. His birds showed restlessness only after they had reached a maximum weight; it disappeared after they had lost weight, but reappeared when they had gained weight. This is a matter on which banders can give us information by weighing their birds; the native sparrows that I have caught did not show high weight in the fall, nor did White-throated Sparrows (*Zonotrichia albicollis*) gain weight during stays of five to twenty-six days.

"Release of Spring Migration Restlessness through Warmth in Caged Redbreasts, *Erithacus rubecula* (L.)."—On March 21st the temperature was reduced to 5° C., then raised on March 30th to 20° C.; lowered on April 3d and raised again April 6th. The sudden warming of the room brought on migration restlessness in all the birds.

"The Migration of Birds."—A review of recent theories. M. Dupond disagrees with the ideas of Stimmelmayer and Cathelin, but quotes with approval Wachs and Rowan. On the subject of "way-finding" he mentions the notable experiments of Rüppell and Stresemann. He criticizes the glacial theory of the origin of migration, believing that life originated near the equator and spread to the north, the cold of winter causing a yearly retreat in the case of the birds. He cites Mayr's study of the Serin (*Serinus canarius serinus*), a permanent