

tion, behavior, etc., etc. Like the use of the binoculars, bird-banding might be termed another improved method of study and like nomenclature it must be regarded as a means, not an end, of zoölogical science. It will be in the next generation that bird-banding will come into its own, when sufficient returns are on record to work out definitely lines of migration and kindred things, but there are meanwhile numerous problems that are being worked out even now with most satisfactory results. Furthermore, there are all sorts of side lines being carried along with the bird-banding activities, increased cooperation with organizations dealing with bird conservation, spreading of the popular interest in bird study and, most important of all, a definite plan for ornithological education. This is a novel idea, and one with great possibilities. We have, I fear, been too prone in the past to consider the ornithologist born and not made, and to let the young student educate himself. Bird-banding, attracting attention as it does from an entirely new angle, naturally draws its devotees to a large extent from new classes or groups never before interested in ornithology. They look upon the older ornithologists, I fear, as a precious lot of conservatives, and many of our methods as antiquated; and in many cases they are right, and the remedies and innovations which they propose should be welcomed. They all tend to strengthen the interests that we all have at heart and make for a broader and better ornithology. Bird-banding is going to be a big part of the ornithology of tomorrow."

BLUEBIRD BEHAVIOR AT HIGHLAND VIEW FARM

BY A. W. HIGGINS

DURING 1924 only one pair of Bluebirds (*Sialia s. sialis*) nested on my farm at Rock (Middleboro), Massachusetts. This pair arrived together, mated, on Feb. 27th and spent the next four or five weeks in making up their minds which bird-house suited them best. Nest-building began about April 15th. The first set numbered five eggs, all of which hatched, the young leaving the nest on May 24th. These were all banded except one—numbers 71946-7-8-9. The parents wear bands 71944 (♂) and 71950 (♀). The old birds remained with the young until they could care for themselves, and then a second nest was built in which four eggs

were laid. The nest, however, was immediately deserted and nest number three was built, from which four youngsters, bearing bands Nos. 243862-3-4-5, flew away on August 8th. While the old birds were engaged in incubation and the care of this second brood, the first brood kept together near the house and was visited occasionally by the male parent.

For about a week after the second brood left the nest the entire eleven birds were commonly seen together all banded except one, and about August 15th they disappeared for approximately one month, when, to my surprise, eleven Bluebirds suddenly appeared, ten of which were banded, and remained about the premises until November 5, when they again disappeared, this time for the season, I believe, as a family group. During their month's absence (August 15th to September 15th) all the birds had assumed their winter plumage.

The evidence in support of the belief that the eleven birds appearing at the farm on September 15th were my two parent birds and their nine young is as follows:—

(1) There was only one pair of nesting birds of this species on my place during the season of 1924, and they raised nine young, all of which were banded but one.

(2) No unbanded Bluebirds were seen on the farm during 1924 of whose history I am uncertain with a single exception, a bird trapped on October 7th, which almost certainly was the member of brood No. 1 that escaped when I banded the other four. This bird now wears band 137824.

(3) The nearest banded Bluebirds known to me besides my own were at a banding station at least six miles away.

(4) The fact that on October 5th I trapped a repeat from the second brood, No. 243863, and that on October 10th I took as a repeat No. 243864, also a member of the second brood.

(5) The constancy of the occurrence of the same number of birds at appropriate times in the season and the fact that no unbanded birds appeared with them at any time except as stated.

At no time has the number of Bluebirds exceeded eleven, and it is suggestive that the prevailing division of the birds, when not all together, was in groups of two, four, and five, which indicates that the two broods remained as sub-units in the family group.

The above data appear to show, among other things, that even some of our most highly organized birds, the *Turdidae*, have the habit of maintaining a family organization which may exist through the nesting and molting seasons and the fall months in part, a period of about six months, and that, as such a group, they started southward to their winter home.

In the matter of nest-building a considerable variety of material was used in the three nests built. Nest No. 1 was composed mainly of the inner bark of a dead chestnut tree. Nest No. 2 was made of grass, lined with a finer grass, and the last nest was constructed of white pine needles and grass, lined with feathers. All these nests were placed within one hundred feet of my house and within one hundred feet of one another.

SEMI-COLONIZATION OF VEERIES

BY KATHERINE C. HARDING

LAST summer I stayed at a camp near Lake Asquam, New Hampshire, (five and one half miles from the town of Meredith) from June 7th until the 12th of July. Part of the time Mr. Harding was there and worked with me in banding fledgelings and in studying the birds nesting in our vicinity. During this period a large number of nests of the Veery (*Hyllocichla fuscescens fuscescens*) were found, and an attempt was made to locate all their nests in a limited area of approximately three acres.

This area is generally tree-covered, hillside land, with occasional openings, sloping gradually northerly to the lake. Mountain laurel (*Kalmia latifolia*) occurs well distributed over the tract, but much more plentifully on about one third of the area which is heavily wooded with deciduous trees, among which the beech is prominent, with large pines occurring occasionally. Beneath these is a nearly continuous growth of mountain laurel through which it is most difficult to force one's way. The laurel averages from eighteen inches to twenty-five inches in height. Certain patches of it are three or four feet high. As a whole the three acres are fairly dry and well-drained, but close to the water a narrow zone parallel to the shore occurs that in a wet season is doubtless somewhat swampy.