setts.

## GENERAL NOTES

Flicker with Orange-red Shafts in Wing and Tail Feathers.—A juvenile flicker of more than usual interest was banded at the Wharton Station, Groton, Massachusetts, on September 24, 1939, with band 38-360652. The bird was acquiring its first winter plumage, the tail being composed entirely of new feathers, the two central ones, however, being only about one inch out of the sheaths. The wings also were in process of being renewed, both old and new feathers being present. The old feathers in the wings had the normal yellow shafts. The new feathers present, though, were distinctly extraordinary, being described as having orange-red shafts. All the tail feathers had orange-red shafts.

This bird probably just missed being a collector's item. Feathers in the left wing had on them the almost unmistakable markings caused by shot. One shot had apparently also gone completely through a tail feather. Perhaps some collector will remember attempting to bag an atypical specimen of Colaptes auratus luteus.—Edwin A. Mason, Wharton Bird Banding Station, Groton, Massachu-

Migrant Shrike Returns on Anniversary of Its Banding.—Looking from a window just after noon on January 20, 1940, I saw a Tree Sparrow (Spizella a. arborea) enter a Government sparrow trap in my back yard. I got into my wraps and rubbers at once and went out to release it. Certainly less than three minutes elapsed after I left the window until I stepped out of the door into the light snow which covered the ground. Within that short time, however, a Migrant Shrike (Lanius ludovicianus migrans), previously unseen, had entered the trap. As I left the house he could be seen trying to escape from the trap with the dead sparrow dangling from his beak. The shrike's beak held the sparrow by the nape of its neck.

When I approached very close to the trap the shrike dropped its prey in one corner. The sparrow's body did not even quiver, its life had been so completely erased during those few seconds. Although the shrike remained in the trap for almost an hour while I observed him from a distance, not once again did he pay the least attention to the dead sparrow, much less touch it.

The shrike, by the way, wore a band on its right leg. Upon examination I found it to be 39-214051, which I had placed upon the leg of a Migrant Shrike exactly one year previous (January 20, 1939). Upon that occasion the bird was captured in a crab net while it was attempting to reach two Tree Sparrows in the same Government sparrow trap. (See Bird-Banding, April, 1939, page 90.)— G. Hapgood Parks, 99 Warrenton Avenue, Hartford, Connecticut.

Robins and Cowbird Eggs.—Herbert Friedmann was fortunate enough to see a Cowbird (Molothrus aler) lay in a Robin's (Turdus migratorius) nest and describes the manner in which the owner promptly ejected the egg (The Cowbirds, 1929: 259). He found, however, that a Chipping Sparrow egg (Spizella passerina) of similar color as the Robin's eggs, but much smaller, was tolerated.

I have experimented with four Cowbird eggs and three English Sparrow (Passer domesticus) eggs; two were rejected and five accepted. One female Robin in Columbus, Ohio, and another in Augusta, Michigan, each removed the Cowbird egg at once. Two English Sparrow eggs hatched one day after one young Robin; a few hours later the whole brood had been taken by some enemy. The third English Sparrow egg hatched five days before the Robin eggs; the nestling lived only one day. One Cowbird egg failed to hatch, apparently having been addled before it was given to the Robins. The other hatched on the same day as two of its nest-mates, the third Robin hatching the following day. Although dwarfed by its companions, the Cowbird survived for three days.

Friedmann mentions "Half a dozen or more records," from five states of Cowbird eggs in Robin nests. Trautman (Birds of Buckeye Lake, 1940: 393) reports one similar case and also three instances in which Robins were feeding Cowbirds out of the nest; this is not proof that the latter were raised by the former, as young Cowbirds sometimes attach themselves to other foster parents. The only case I can find of Robins raising Cowbirds was that of Friedmann's where he "put two very young Cowbirds in a Robin's nest which contained only eggs at the time. The Robins stopped incubating their own eggs and took care of and reared the

young Cowbirds."

Here is an interesting field for experiment. Instead of destroying that next Cowbird egg, put it in a Robin's nest, or give it to an English Sparrow, House

Wren or Starling, and watch what happens.

We often read of "the same pair of Robins" returning year after year to the same nest under the porch, but the identity of the birds is usually taken for granted. In 1929 a pair of color-banded Robins raised three broods between

granted. In 1929 a pair of color-banded Robins raised three broods between March 27 and July 12 on our neighbors' porch in Columbus, the first in a nest built by the female on the southwest corner, the others in a nest she built in the northeast corner. Neither of these birds was seen after that year. In 1930 an unbanded pair adopted the nest in the southwest corner.—MARGARET M. NICE, 5708 Kenwood Avenue, Chicago, Illinois.

## NOTES ON TECHNIQUE

Two basic bait mixtures are used at the Wharton Bird Banding Station. One is aimed at the seed-eating small bird group, mostly Fringillidae; the other at larger species, mainly *Icteridae*. Two separate trap models with two and four-inch entrances respectively, are used in conjunction with these mixtures. Thus by correlating the sizes of entrances and baits offered the two groups, it is possible to reduce to a minimum the association in the traps of larger birds with smaller ones, and the consequent possibility of injury to the small birds.

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Millet, canary seed, hemp, sunflower. These in a 4-2-1-1 ratio by bulk make a mixture with a wide appeal to the whole finch family. It also attracts members of Paridae and others. Golden millet (German) is the millet generally used, but if an unfavorable price differential exists between this and other varieties, a proportion of the millet in the mixture can be other than golden. Japanese, and both large yellow and red millets (the last two are both Proso millets), have been used, but it was rather definitely proven that the red is less readily taken than the others. Because of its tendency to spoil, chick feed is not added to the mixture as it used to be. The naturally polished surface of the seeds give good protection against spoiling by mildews and moisture. They will sprout, of course.

A grain mixture of cracked corn, unhulled rice, oats, and Japanese buckwheat, roughly in ratio by volume of 5-2-1-1, has been found excellent for Red-winged Blackbirds and Bronzed Grackles. The oats in the mixture probably aided this bait to attract male Bobolinks prior to the nesting season. Twenty were trapped in 1939. In 1940 eight and one female were banded and a return from the previous year trapped. The buckwheat has aided in attracting a few mourning doves into the traps. This species is also fond of hemp.

Oats soaked in water for a few days were very efficient during winter months as a bait for White-throated Sparrows and Meadow Larks in South Carolina. For unknown reasons this bait has not been found satisfactory in Massachusetts.

By relying upon the two mixtures referred to above, plus the use of water, a large number of species can be trapped. Seventy-three were trapped at the Wharton Station in 1939. Such baits have the advantage of being unattractive to cats and dogs. When it is found desirable to resort to bread and cracker crumbs, meat scraps, nuts, and suet, it is good policy to raise the traps well off the ground by means of a table, bench, or other similar support.—Edwin A. Mason, Wharton Bird Banding Station, Groton, Massachusetts.