

departments, universities, and this Service.—Harry T. Maltby, Game Management Agent, U. S. Fish and Wildlife Service, 3055 N. E. Davis, Portland 15, Oregon.

Scarlet Tanager Nine Years Old.—A Scarlet Tanager (*Piranga olivacea*), 40-158464, banded as an adult male on September 28, 1948 at Norristown, Penna., was found dead on August 8, 1956 at Lake Hiawatha, New Jersey (near Boonton) by Mrs. Ruth Floyd. It was thus at least nine years old.—Raymond J. Middleton, 131 N. Whitehall Road, Norristown, Penna.

Spring Migration of Blue Jays.—A Blue Jay (*Cyanocitta cristata*), 543-54682, banded as an adult on April 30, 1957 at Norristown, Penna., was killed as it flew into a car at Baxter State Park (which surrounds Mt. Katahdin), near Millinocket, Maine on June 30, 1957 (reported by Mr. Myrle J. Scott).

Each spring, around the first week in May, we have an influx of new Blue Jays. These are apparently migrating, as those we trap at this period are all new birds which move on, as in a few days our Blue Jay population is back to normal. Though a resident species in much of its range, there is considerable movement within that range.

A Blue Jay banded at Norristown on May 10, 1946, 37-342498, was retrapped 12 days later by Jesse Miller at New Hyde Park, Long Island, N. Y.—Raymond J. Middleton, 131 N. Whitehall Road, Norristown, Penna.

Random Notes on the Blue Jay.—Receipt of Mr. Middleton's general note (see above) led me to look at my own data, and at some of the more recent papers on the migration of the Blue Jay (*Cyanocitta cristata*). Field observers have long recognized that there is a widespread southern movement in fall, and a less conspicuous flight in spring (Brown, Lewis, Tyler). A number of banding stations (for example, Dexter, Gill) have obtained similar evidence.

The most striking example of the spring movement in the records of our banding station in West Hartford is for 1955. Between May 6 and 8, we banded 38 Blue Jays, and 15 more by the 19th, for a total of 53, compared to 24 in all of 1954, and 28 in all of 1956. Of these 53, 4 were retaken in 1956 or 1957, 1 was retaken in the fall of 1955, and 1 in July. In addition, on May 8, 1955 we took 2 birds banded in 1954, and another on the 12th; none of these had been taken since at least September of 1954. While these figures suggest that the flight of May, 1955 was not wholly made up of migrants, they do indicate that the birds were largely migrants. While 5 out of 53 were taken in a later year, we have taken 5 Blue Jays in a later year out of only 12 banded between early September and early November, 1954, with only a slightly longer lapse of time for the 1954 group.

Unfortunately, we have not obtained any estimate of age of Blue Jays banded in spring. The most striking character of the immature bird appears to be the color of the inside of the bill (Nichols), which has lost its value long before May. We do not have many records showing date of change of color, but three may be of interest: (1) an immature banded in July, next taken the following February, with bill all black; (2) an immature banded in July, next taken the following October 12, with bill entirely black; (3) a bird judged to be an immature when first taken, on December 10, because of some white near the base of the bill (inside), but all black when taken the following March 31. These cases, together with the black bill color of most Jays taken in early spring, suggest that birds showing white between October and February are less than a year old, but that birds showing all black may be either adult or immature. Incidentally, even Blue Jays several years old may show a light area at the extreme tip (1 to 2 mm.) of each mandible. Adults may also keep traces of white near the base of the upper mandible, inside.

We have not tried to indicate age of these spring birds by plumage, although young jays a few weeks out of the nest are obvious. Pitelka (1946) considered immature birds fairly easy to tell by plumage in the spring, but Tyler (p. 39) considered the first winter plumage "hardly distinguishable from that of the adult."

The thinness of bands on four 1954 Blue Jays retaken in October, 1957 leads me to feel it is desirable to reband this species (on the other leg, without removing the original band) after three years. I hope to develop some data on just how much longer these thin bands last; one was almost precisely the thickness of a size zero band; none had worn unevenly (as bands on Bronzed Grackles may do), and all were highly legible.