

history of the individuals that have nested with us through the past nineteen years. The story as unfolded is a most remarkable one, it required only twelve birds to keep one pair nesting for nineteen years and of the eleven birds that were here prior to 1947, nine returned or an average of nearly 82%.

The following gives the record for each of the nineteen years, in three of which no young were hatched and as the adults were never caught until feeding young none were taken during these three years either.

- 1929—A147214 and A147216 mated, 2 young raised, Box A.
1930—A147214 and A147216 mated, 1 young raised, Box A.
1931—nest not successful, Box A.
1932— " " " " Box A.
1933—A147214, mate not taken, 4 young raised, Box A.
1934—A147214 and 34-105309 mated, 5 young raised, Box B.
1935—A147214 and 34-105309 mated, 6 young raised, Box A.
1936—A147214 and 34-105309 mated, 4 young disappeared at 4 days
of age, Box C.
1937—36-155079 and 34-105309 mated, 5 young raised, Box C.
1938—36-155079 and 38-131956 mated, 5 young raised, Box A.
1939—36-155079 and 38-131956 mated, 7 young raised, Box A.
1940—40-110658 and 40-110659 mated, 6 young raised, Box A.
1941—40-110658 and 40-110659 mated, 3 young raised, Box A.
1942—40-110658 and 40-110659 mated, 2 young raised, Box D.
1943—40-110658 and 42-137924 mated, 7 young raised, Box C.
1944—40-110658 and 42-174567 mated, 6 young raised, Box B.
1945—40-110658 and 43-135097 mated, 2 young raised, Box E.
1946—nest built but deserted, one of pair wore band, Box A.
1947—43-135097 and 46-120678 mated, 6 young raised, Box A.

In looking over these annual records of this species we find many interesting facts. In fifteen out of nineteen years their nests were successful and a total of sixty-seven young was fledged; the smallest brood had only one while the largest brood was seven in two instances. We never heard again from any of the sixty-one nestlings banded prior to 1947, they may have spread to nearby areas if any returned as breeding adults.

Two of the adults have shown a remarkable record, one A147214 nested from 1929 to 1936 inclusive, during 1931 and 1932 the nests were not successful and no adults trapped, but as in each of these two years one of the pair wore a band and as this bird returned in the following four years, it seems reasonable to assume that it was here both of them. It positively was a breeding bird here for six years and may have been here for eight, when last taken it was at least eight years of age.

The other with the most unusual record was 40-110658, nesting here for six years, 1940 to 1945 inclusive. Still another nested for four years, while two nested for three years. Only once, in 1940 did we find that neither of the pair was a returned bird.

We also find that during 1934-35 and 1936 the same pair was mated, this being duplicated in 1940-41-42. Did each of these two pairs that were mated for three consecutive years migrate southward together, winter in the same area and then come northward the following spring together or did they go their separate ways when the summer season was over and only meet by chance on arrival at the breeding grounds the following May?—Raymond J. Middleton, Norristown, Pa.

Tufted Titmouse Nesting Seven Years.—Here is the story of a Tufted Titmouse, *Parus bicolor*, banded as an adult on January 27, 1939, #39-126650. This bird remained to nest in our boxes for the next seven years, 1939 to 1945 inclusive. By use of the trap door on the boxes it was possible to keep a complete history of it. In 1939 its mate was not captured. During the next three years, 1940-41-42 it was mated to #39-126609. Then for the next three years—1943-44-45 it was mated to #40-137944.

The following table gives the complete data for each year—

- 1939—one brood of five young.
- 1940—one brood of seven young.
- 1941—two broods, five in first, three in second.
- 1942—one brood of six young.
- 1943—one brood of three young.
- 1944—one brood of six young.
- 1945—two broods, seven in first, five in second.

In all seven years the nests were successful and the young flew from the boxes. Thus we find that this bird with its mates produced forty seven young in seven years, in two of which two broods were raised, the final year being the most productive.

In Bent's "Life Histories of North American Jays, Crows and Titmice", Bulletin No. 191, in the description of Tufted Titmice we find it recorded that this species only raises one brood annually, yet in this individual we find on two occasions two broods were raised.

Five times during the seven years while this bird was sitting on the nest we opened the lid of the box to see if the eggs were hatched, lifted the bird off by hand and then placed it back in the box only to have it settle right back on the eggs while we watched.

#39-126650 was a permanent resident and a constant repeater in the traps, being taken in all seasons of each of the years. It was captured seventy times in the seven years, the highest being twenty-two in 1939. The last capture was on September 15, 1945 when it was at least seven and one third years of age.

One May after combing our collie dog, a pile of fine hair was thrown under some trees near the box in which the titmice were building; a few days later we found the nest completely lined with the dog hair.—Raymond J. Middleton, Norristown, Pennsylvania.

An old Goldfinch.—On 21 February 1949, I trapped at Lincoln, Massachusetts, an adult male Eastern Goldfinch (42-10197), banded by Mrs. Charles L. Smith on 19 February 1942 in the adjacent town of Weston. It is at least seven and one-half years old.—Charles H. Blake, Lincoln, Massachusetts.

RECENT LITERATURE

Reviews by Donald S. Farner and others

BANDING

(See also Number 7.)

1. The Activities of the Ornithological Station at Mesola, 1936-1940. (L'attività dell'Osservatorio Ornitologico della Mesola nel quinquennio 1936-1940.) Giuseppe Altini. 1942. *Ricerche di Zoologia Applicata alla Caccia*, 18. 116 pp. During this period 26,112 birds of 135 species were banded. Of these there were reports of 638 returns and recoveries in 69 species. Species banded most frequently include the Starling, *Sturnus vulgaris* Linnaeus 2,539; Greenling, *Chloris chloris mühleii* Parrot 828; Chaffinch, *Fringella coelebs coelebs* Linnaeus 2,220; Italian House Sparrow, *Passer domesticus italiae* Vieillot 1,526; Tree Sparrow, *Passer montanus* Linnaeus 531; Great Tit, *Parus major major* Linnaeus 858; Blackcap, *Sylvia atricapilla atricapilla* Linnaeus 759; Songthrush, *Turdus philomelos philomelos* Brehm 669; European Blackbird, *Turdus merula merula* Linnaeus 1,188; European Redstart, *Phoenicurus phoenicurus phoenicurus* Linnaeus 605; European Robin, *Erithacus rubecula rubecula* Linnaeus 504; Common Heron, *Ardea purpurea purpurea* Linnaeus 1,841. Greatest numbers of returns and recoveries came from Starlings 86; Chaffinches 32; Great Tits 46; Heron 70; Lapwing, *Vanellus vanellus* (Linnaeus) 31. Details are given for the recoveries and returns together with brief analyses of their significance. A male Sparrow Hawk, *Accipiter nisus nisus* (Linnaeus), banded 25 October 1934 at Torre Abá (Mesola-Ferrara) was captured 14 September 1939 in Finland. A female Sparrow Hawk banded at same locality 18 January 1936 was recovered 18 May 1936 in Moravia. The data from the 70 recoveries and returns of Common Herons (almost all banded as young) are especially valuable; 54 recoveries were