

*Encephalitis Research Center, Florida State Board of Health,  
4001 Tampa Bay Blvd., Tampa, Fla. 33614*

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#### GENERAL NOTES

**Analysis of Chimney Swift Returns at Kent, Ohio, in 1964 and 1965, with Notes on a Declining Nesting Population.**—Studies of the Chimney Swift (*Chaetura pelagica*) on the campus of Kent State University were continued for the 21st and 22nd consecutive years. In the spring of 1964 the first migrants were observed over the campus on 17 April, and that night 6 were found roosting in the air-shafts of two university buildings. Each day others returned until a total of 38 was reached. These were distributed among the banding year-groups as follows: 1954 (1); 1955 (1); 1956 (1); 1957 (4); 1958 (5); 1959 (5); 1960 (2); 1961 (3); 1962 (8); 1963 (8). So far as sex has been determined, 11 were males and 15 were females. Twenty-four of the returns were taken from air-shafts where they had formerly nested, while 7 others were taken from air-shafts where they had roosted during the previous year. Only 6 swifts were recaptured from air-shafts where they had not previously been trapped.

A total of 25 swifts nested in the same shaft as in 1963, with 10 pairs being reunited as before. One returned to nest again where it had nested from 1960 through 1962, but failed to do so in 1963, although it was a resident bird in the same shaft in 1963. Four birds nested in a new location in 1964, and one was nesting during its first year on the campus. Only 3 returns taken before nesting was completed failed to nest on the campus. Four others returned late in the season. One swift was found dead on the campus, but all others were recaptured alive from the air-shafts on the rooftops of four buildings. One nesting bird disappeared before it could be trapped, and its mate was subsequently found dead on a nearby roof top. Two swifts nested in air-shafts where they had resided as non-breeding birds in 1963. None of the returns in 1964 became a visitor with a mated pair, although one of them was a temporary visitor with a pair in shaft S-1, where it was also a brief visitor in 1963, and one newly banded bird became an all-season visitor with the pair in shaft V-1. Of 7 non-nesting returns, 2 had formerly nested on the campus, 2 were formerly visitors with a mated pair, and one returned to the shaft from which it was banded in 1963. The last record of resident swifts on the campus was recorded 24 September, and the last migrant observed passing over the campus was seen on 9 October.

In the season of 1965 Chimney Swifts returned to the campus on 19 April. That night 7 swifts were found roosting in 6 air-shafts. Each subsequent night the number of birds increased gradually until cool, rainy weather set in which slowed down arrival of migrants and eventually sent some of the early arrivals off, presumably in search of a warm chimney. These soon came back, however, and other migrants continued to arrive. Eventually 34 returns were obtained in contrast to the average number of 44. These came from the following banding year-groups: 1954 (1); 1956 (1); 1957 (4); 1958 (5); 1959 (3); 1960 (2); 1961 (1); 1962 (6); 1963 (5); 1964 (6). Twelve of these were males and 12 were females. Sex for the other 10 has not yet been determined. Poor nesting success over the past two years may be one factor in the decline of the nesting population. Only 11 nests were produced in 1965 in contrast to the average number of 18.

Sixteen swifts were recaptured in air-shafts where they had formerly nested. One other was recaptured from an air-shaft where it had been a seasonal visitor in 1964; two others were recaptured from the air-shaft where they roosted briefly the previous year, and one was retaken from the shaft where it had been banded the year before. Fifteen swifts nested in the same shafts in 1965 as they did in

1964, and 12 of these remained mated as before. Another pair remained mated with each other, but moved into a new shaft for nesting. Two birds continued as mates for the eighth consecutive year. Four birds were nine years of age. One was ten years old, and another one equalled the age record for Chimney Swifts of 13 years. Two pairs lost their nest in the early stages of nesting but soon replaced them. Two females deserted their former mates and nested with a new mate in a new shaft. Two pairs failed to construct a nest, but remained together in residence through the summer.

One female left its former mate in shaft D-1 to nest with the male in shaft E-1 when his former mate failed to return. The female which nested in shaft M-1 in 1964 was replaced by the female which nested the previous year in N-9, where the 1964 female from M-1 joined with a bird which nested previously in I-1, but this pair failed to build a nest. Four returns which came back before the nesting season began failed to nest or remain on the campus. Four others were captured after the nesting season was over and had spent the summer season elsewhere. At least three of these eight were immature birds. The last day when swifts were present on the campus was 5 October when one of the 9-year-old birds and the 13-year-old bird were released from traps. They were the last two remaining swifts for the season.

The preceding report in this series was published in *Bird-Banding* 35 (1): 38-39. 1964.—Ralph W. Dexter, Department of Biological Sciences, Kent State University, Kent, Ohio.

**Alleged Xanthochroism in Bird Plumages.**—In his paper on melanism in North American birds, Gross (1965) refers to the occurrence of xanthochroism in several species. In almost all cases such variants are not xanthochroistic, this implying replacement of normal colour by yellow, but are non-melanic schizochroic individuals (Harrison 1963a) the absence of melanin in the plumage leaving carotenoid pigments, which might be yellow or red, phenotypically apparent. The yellow pigment on the head of an Evening Grosbeak (*Hesperiphona vespertina*), referred to by Gross, could be an example of concealed pigment similar to that found in some African Weavers (Ploceidae) (Harrison 1965). I would suggest that the Cardinal (*Richmondia cardinalis*), Bluebird (*Sialia sialis*), and Purple Finch (*Carpodacus purpureus*) referred to in the same paper are probably not examples of either of the variants so far mentioned, but may be dilute (= chlorochroistic, of Rensch 1925) forms of non-eumelanic schizochroism (Harrison 1963b). The latter produces "fawn" variants and in the dilute forms the light brown melanin may be present in very small quantities and the plumage may appear almost yellow. There is concealed yellow in the plumage of some olive-brown birds, but I would be interested to find that it occurs in conjunction with either red or blue. The point could be settled by sectioning feathers of such specimens and examining for the presence of melanin granules.

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**Autumnal Hawk Migration Through Panama.**—Immense, mixed flocks of hawks migrate through Central America each fall to their wintering grounds. We witnessed this spectacular event in 1963 (Rogers), 1964 (Hicks), and 1965 (Child) at a banding station near Almirante, Bocas del Toro, Republic of Panama on the Caribbean coast. Most of the migrants were Broad-winged Hawks (*Buteo*