

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.

#### REFERENCES

- GROSS, A. O. 1965. Melanism in North American birds. *Bird-Banding* 36: 240-242.
- HARRISON, C. J. O. 1963a. Non-melanic, carotenistic, and allied variant plumages in birds. *Bull. Brit. Orn. Cl.* 83: 90-96.
- HARRISON, C. J. O. 1963b. Grey and Fawn variant Plumages. *Bird Study* 10: 219-233.
- HARRISON, C. J. O. 1965. Concealed yellow pigments in the breeding plumages of some weavers. *Bull. Brit. Orn. Cl.* 85: 44-47.
- RENSCH, B. 1925. Die farberaberration der Vögel. *J. Orn.* 73: 514-539.
- C. J. O. Harrison, Bird Room, British Museum (Natural History), Cromwell Road, London S. W. 7, England.

**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*