



Figure 1. Abnormal legs of young Sooty Tern.

**Extra toes on a Sooty Tern Chick.**—While banding young Sooty Terns (*Sterna fuscata*) on Bush Key, Dry Tortugas, Florida 11 June 1967 we picked up a chick about 18 days old with an extra toe projecting from the head of the right tarsometatarsus and two extra toes and a partial web from the left, as shown in Figure 1. The extra right toe measures 15 mm and the larger of the two left toes measures 16 mm as against 22 mm for the normal middle toes on both feet. Dissection showed muscles doubled on the tibiotarsus; no other obvious internal abnormalities. This is the first such abnormality we have noted in handling more than 125,000 Sooty Tern chicks over the past eight seasons. Figure 1 was drawn from the specimen in the University of Florida Collections by Pat Elliott of the Florida State Museum staff.—OLIVER L. AUSTIN, JR., *Florida State Museum, Gainesville, Florida 32601*

**Red Crossbill breeding in Minnesota.**—On 25 February 1967 a pair of Red Crossbills (*Loxia curvirostra*) appeared on the Moorhead State College campus. The birds subsequently built a nest in a white ash (*Fraxinus americana*) and began to incubate three eggs approximately 15 March. The nest site was in an area of intense human activity (several hundred students passed daily within 50 feet of the nest) which had no observable effect on the birds. The female apparently did all the incubating, and on several occasions was seen being fed in the nest by the male. The eggs hatched about 1 April. Both parents fed the young a diet consisting largely of sunflower seeds, evidently gleaned from local feeders. The young left the nest on 19 April.

This species is well-known for its erratic breeding schedule, often nesting during the relatively adverse weather conditions of late winter or early spring (Bent, U. S. Natl. Mus., Bull. 237: 500–512, 1968). Mean ambient temperature to the nearest degree (U. S. Weather Bureau, Fargo, North Dakota) was 19°F during nest-building and laying, 34°F during incubation, and 39°F during the brood period. The average minimum daily temperature during the study period was 21°F, with an extreme of –15°F during nest-building. The relationship of this nesting to photoperiod is of interest. Although one cannot be certain, it seems unlikely that these birds had been influenced by daylength greatly in excess of that characteristic of this latitude (46° 54' N). During the month preceding egg-laying, photoperiod increased from about 11 hours to 12 hours daily. Since Tordoff and Dawson (Condor, 67: 416–422, 1965)

show that a 12-hour photoperiod is insufficient to cause full gonadal recrudescence, this observation supports their concept that food availability is the probable stimulus for final gonadal maturation.

Although it has long been assumed that the Red Crossbill breeds in Minnesota (Roberts, *The birds of Minnesota*, vol. 2, Minneapolis, Univ. Minnesota Press, 1932: 372; R. B. Janssen, pers. comm.), this is the first verified nesting record for the species in the state. Grateful acknowledgment is extended to Mrs. Elsie Welter for several notes on behavior at the nest.—OSCAR W. JOHNSON, *Department of Biology, Moorhead State College, Moorhead, Minnesota 56560.*

**Notes on fossil hawks (Accipitridae).**—This paper places on record two fossil accipitrids from the Early Eocene and Late Oligocene of North America. The first represents the second oldest fossil of the Falconiformes and the oldest record for the Accipitridae; the latter is an apparently heretofore unknown species of the genus *Buteo*.

FAMILY ACCIPITRIDAE, SUBFAMILY ?

*Material.*—Nearly complete left carpometacarpus, American Museum of Natural History Department of Vertebrate Paleontology No. 7434; collected from latest Early Eocene (Huerfano Formation, upper faunal zone; Locality II: "Fossil Creek," NW¼ Sec. 12, T26S, R70W; see Robinson, Peabody Museum Bull., No. 21: 23, 1966, for data on stratigraphy); near Gardner, Huerfano County, Colorado.

*Measurements.*—Length of bone 54.5 mm; maximum width at distal end 10.5 mm; proximodistal length of distal metacarpal symphysis (through facet for digit III) 5.1 mm (approximate); width (external to internal) of metacarpal II (30 mm from proximal end of bone) 5.0 mm; depth of metacarpal II (30 mm from proximal end of bone) 3.7 mm; width (external to internal) of carpal trochlea 6.5 mm.

*Remarks.*—The fossil is assigned to the Accipitridae on the basis of the characteristic features of its distal end. Unfortunately the proximal end is so damaged (the process of metacarpal I is broken at its base and the carpal trochlea has been somewhat crushed) that naming the fossil at this time would be premature. Definite allocation to a particular subfamily is impossible as no consistent characters of the distal end of the carpometacarpus were found to be diagnostic of the various subfamilies. Of the genera compared, the fossil carpometacarpus seems most similar to that of the living *Rostrhamus sociabilis* in size and shape; it is slightly smaller, but differs in having: (1) metacarpal III wider proximally and somewhat larger distally, (2) junction (at proximal end) of metacarpals II and III located more distad relative to total length of bone, (3) tuberosity of metacarpal II slightly less developed, (4) area of distal metacarpal symphysis broader (proximodistally), (5) metacarpal II slightly more square-shaped, being less rounded on its sides, and (6) a deeper and broader groove between the facets for digits II and III. In general, the fossil differs from other accipitrids examined in the reduced size of the facet for digit III, in the deeper and broader groove between the facets for digits II and III, and in having the posterior face of metacarpal II flatter. A more precise statement regarding relationships will be possible only after a detailed osteological study of recent and fossil forms.

The oldest falconiform is the cathartid vulture *Lithornis vulturinus* Owen from the Upper Paleocene (London Clay) of England. Another cathartid, *Eocathartes robustus* Lambrecht from the Middle Eocene of Germany, is nearly contemporaneous