

the plant material to the female. This activity lasted 15 to 20 seconds. The female then assumed an inviting posture with the neck extended and the fore part of the body lowered in the water so that the basal portion of the neck was nearly submerged, while the cloacal region was quite high. The male swam to the female and placed the plant on her back, near the cloaca. The plant immediately slid into the water but was replaced several times by the male. The female then began to move very slowly forward while maintaining the inviting posture. The male followed, without the weed, and gently nudged the cloacal region of the female with his breast. The male then, with crest up, wings closed, and neck stretched forward, hopped onto the female's back, while the female continued to move forward. Mounting resulted in the female being pushed quite low in the water, with only her head and a small portion of her back above the water. Vigorous paddling with the feet, as indicated by forward movement, probably prevented the female from becoming completely submerged. Mounting lasted three to five seconds and was followed immediately by calling and a bill-touching display. The birds then became quite passive and moved away in a normal swimming attitude. At no time during the above activities was there any sign of aggression.

The bill-touching display has also been described by Johnstone (1953. *Canadian Field-Nat.*, 67:181).—JAMES E. HEMMING, *Department of Zoology, University of Montana, Missoula, Montana, 2 August 1966.*

Turkey Vultures found to feed on coconut.—While in Jamaica (23 December 1966 to 3 January 1967), I studied the feeding habits of the Turkey Vulture (*Cathartes aura*) in and around Hector's River, Portland Parish. During that period, over 100 specific instances of the vultures feeding on coconut (*Cocos nucifera*) were recorded.

Because the feeding habits noted above are not normal for the Turkey Vulture, additional evidence was obtained by crop analysis. During a six day period, ten Turkey Vultures were captured using a Bal-chatri trap. Six of the ten regurgitated on being handled and the remaining four were induced to regurgitate by massaging their crops. By visual estimate, the regurgitated material consisted of 90 per cent coconut and 10 per cent rat (*Rattus norvegicus*), a partially digested grasshopper, and some leaves. Meat was used to attract the birds to the trap but none was consumed in this phase of the study. Dead hamsters, white rats, mice, and guinea pigs served as the meat supply.

Bent (1937. Life histories of North American birds of prey, Part I. Dover Publications Reprint, p. 20) mentions that "the birds (Turkey Vultures) have been known to feed on grasshoppers; and they readily eat fish." He summarizes Green's 1927 comments (op. cit., p. 20) as follows: "James Green reports a remarkable observation of finding a flock of 62 vultures, hard pressed for food, feeding on pumpkins." The texture of rotten coconut is similar to that of pumpkin.

Coconut is extremely abundant around the small coastal town of Hector's River. Several small coconut cutting huts supply the vultures with this material through discards. These opened coconuts are found in piles 6 to 8 feet high just outside the huts. The vultures stand on these piles as they feed on the rotting coconuts.

The vultures were given preference tests at the trap location involving a choice between meat, fish, and coconut. The first choice was unanimously meat. After the meat had been eaten or if one bird was occupying the meat successfully, the second choice was the fish. The coconut was touched only in two of the thirteen attempted preference tests. The tests were conducted over an eight day period with gatherings of five to ten

vultures at the food site during each test. Coconut, it appears, ranks low on this scale of preference. It does, however, form the bulk of the vultures' diet, because Jamaica has very few native mammals and dead farm animals or fish are usually picked up by human inhabitants before the cautious vultures approach.—ROGER C. CRAFTS, JR., *Department of Biology, Earlham College, Richmond, Indiana, 16 June 1967.*

The egg tooth of some charadriiform birds.—In their useful reviews, Clark (1961. *Wilson Bull.*, 73:268–278) and Parkes and Clark (1964. *Wilson Bull.*, 76:147–154) have emphasized the need for additional information on the occurrence and structure of egg teeth in some families of birds, particularly the Scolopacidae, and for data on the loss of the egg tooth. Most of the following data were gathered at Churchill, Manitoba, in the summers of 1964, 1965, 1966, and 1967. My research at Churchill was sponsored by the Frank M. Chapman Memorial Fund, The University of Michigan, the National Science Foundation, and the San Diego Society of Natural History.

Charadriidae.—A small deciduous egg tooth occurs on the culmen near the tip of the upper mandible in *Charadrius semipalmatus* and *Pluvialis dominica*. This structure adheres to the culmen until the soft tissues of the bill have dried, at which time it is simply sloughed off. Often the egg tooth is lost by the time the chicks are dry; almost invariably it disappears before the chicks leave the nest. Birds that retain the egg tooth after leaving the nest dislodge it as soon as they begin feeding.

An egg tooth on the tip of the lower mandible has been reported in *Vanellus vanellus* (see Clark, 1961:271). I have found no trace of a similar structure in *C. semipalmatus* chicks that I have removed from the egg or in pipping chicks of *P. dominica*.

Scolopacidae.—Parkes and Clark (1964:150) recorded several apparent variations in the occurrence of egg teeth in this family. Yet, chicks of all the species that I have examined (*Numenius phaeopus*, *Limosa haemastica*, *Totanus flavipes*, *Tringa solitaria*, *Gallinago gallinago*, *Limnodromus griseus*, *Philohela minor*, *Erolia alpina*, *Erolia minutilla*, *Ereunetes pusillus*, *Micropalama himantopus*) are so similar in possessing an egg tooth on both the upper and lower mandibles (Fig. 1) that I suspect the two egg-toothed condition is characteristic of the Scolopacidae. The upper egg tooth caps the entire tip of the rhamphotheca and extends ventrally to the tomium; the cutting surface is a thickened projection from the culmen that points anterodorsally or anteriorly. The egg tooth of the lower mandible consists of a thin, apparently calcareous, sheet that covers the entire tip of the bill. In some individuals this sheet is slightly elevated and thickened at the tip of the bill (e.g., Fig. 1). I do not have sufficient data to determine the extent of inter- or intraspecific variation in this structure.

As in the plovers, sandpiper egg teeth are lost as soon as the bill dries. The thin lower egg tooth is usually sloughed off within a few hours of hatching. Most chicks retain the thicker upper egg tooth for eight to twelve hours after hatching, but I have seen Short-billed Dowitcher (*Limnodromus griseus*) chicks four hours old, whose down was still wet, that had already lost both egg teeth. Six American Woodcock chicks (*Philohela minor*) that I hatched in an incubator lost their egg teeth within 12 to 18 hours of hatching. Wetherbee and Bartlett (1962. *Auk*, 79:117) reported that the woodcock chicks they studied did not lose the egg teeth until two or three days after hatching.

The significance of the double egg tooth in the Scolopacidae deserves further study. In the few species that I have watched hatching, the lower tooth plays no obvious role in rupturing the egg shell or membrane. Rather, its sole function appears to be to protect the delicate tip of the lower mandible. To term this structure an egg tooth may therefore be a misnomer. Since the tip of the upper egg tooth projects anteriorly in