

GENERAL NOTES

Flightless Green-winged Teal in southeast Missouri.—On 25 September 1963, four adult female Green-winged Teal (*Anas carolinensis*) were caught in a night drive-trapping operation on the Duck Creek Wildlife Management Area near Puxico, in southeast Missouri. All had recently molted their wing feathers and were flightless. New flight feathers were at various stages of development: in three birds the longest primaries (the ninth primary in each case) were 70–75 mm long; in one bird the longest primary was 48 mm long. The flight feathers all had soft, blood-filled shafts. In contrast, the full-grown ninth primary is about 120 mm long in adult females, and feather shafts are hard and translucent. This information is reported here because there appear to be no previous observations of flightless Green-winged Teal in Missouri or in other areas so far south of the breeding grounds. No further drive-trapping has been done at Duck Creek so it is not known if such molting occurs regularly here.—JOHN P. ROGERS, *University of Missouri, Gaylord Memorial Laboratory, Puxico, Missouri, 2 August 1966.*

Disgorging of food by Wood Ducks.—Malone (1966. *Wilson Bull.*, 78:227–228) reported regurgitation of *Chara* by Mallards (*Anas platyrhynchos*) about 45 minutes after ingestion. The *Chara* was disgorged in loosely compacted balls, each ball being about one inch in diameter. Malone postulated that disgorging resulted from overeating. No comparison was made of the moisture content of the food when eaten and when disgorged. It is the purpose of this note to report somewhat similar behavior by the Wood Duck (*Aix sponsa*).

In Ohio during 1955–57, I trapped and banded some 600 Wood Ducks. Traps were placed at the water's edge, with the corn on dry soil at the rear of the traps and the funnel entrance of the traps in shallow water. The birds could thus drink water as they fed on the dry corn. An abundance of corn was kept in the traps, and Wood Ducks regularly entered the traps and ate to the limit of their capacities. Crops and gullets were often crammed so full they literally could not hold another kernel. Feeding was completed in a few minutes.

These corn-filled ducks were sometimes kept overnight in burlap bags before work with them could be completed, and corn was often found loose in the bags. In one bag holding 12 ducks, 264 kernels were found, for an average of 22 kernels per bird. The corn was necessarily disgorged by the ducks. Even after such a night in confinement, the ducks often had well-filled crops and gullets. The corn presumably did not move through the alimentary tracts sufficiently rapidly to keep pace with the increase in volume resulting from imbibition.

In the morning, a total of 190 kernels of corn was removed from the digestive tract of one of these corn-filled ducks, 136 kernels coming from the crop and gullet. In a supplementary test, 158 (136 plus 22) kernels of corn were soaked in water overnight; the increase in volume was such that 46 kernels were displaced. With 22 kernels disgorged per bird and the crops and gullets being about equally well-filled in the morning as the preceding evening, approximately 24 kernels moved from the crop farther into the digestive tracts.

This ability to disgorge food in excess of capacity may operate to avert rupture of the crop wall. If the crop is filled to capacity, increase in volume of crop contents presumably would be hazardous to the crop wall.

Malone (op. cit.) commented on the possibility of regurgitation of food by ducks operating in the dissemination of plant propagules. In this case with the Wood Ducks,

the disgorging of food can be seen as an effective means for transporting viable propagules from the birds' feeding places to their roosting places.

The observations reported in this note were made when I was a Research Fellow of the Ohio Cooperative Wildlife Research Unit.—PAUL A. STEWART, *Entomology Research Division, Agricultural Research Service, USDA, Oxford, North Carolina, 13 July 1966.*

Buff-breasted Sandpiper in northwestern Ohio.—On 11 June 1966 I was participating in a state-wide breeding bird census. I, accompanied by five of my students, ran a 25-mile transect stopping to make a 3-minute observation every half mile. Approximately half of my transect was in Hardin County and the remainder in Wyandot County. At 10:00 AM we were standing outside the car beside a plowed field on Wyandot County Road 294, five miles west of Harpster, Ohio. While I was listening for bird songs from a nearby woodlot my attention was drawn to a sandpiper moving among the clods in the adjacent field. It was a Buff-breasted Sandpiper (*Tryngites subruficollis*). Within a few minutes we located six other individuals. They were exceedingly tame and fed over the plowed field independently. On several occasions they approached within 30 feet and we observed them for 20 minutes. At the end of that time the birds got up as one and flew off to the east. The only previous spring record of this species in Ohio is given as 6 May 1923 by Borror (1950. *Ohio Jour. Sci.*, 50:1-32). Although the spring record of the Buff-breasted Sandpiper in Ohio is unusual, the date is not. Oring (1966. *Wilson Bull.*, 78:173) had this species in Oklahoma on 3 June.—RICHARD S. PHILLIPS, 334 Liberty Street, Findlay, Ohio, 23 July 1966.

Egg teeth and hatching methods of the Long-billed Curlew.—Recent discussions on egg teeth (Wetherbee, 1959. *Bird-Banding*, 30:119-121; Clark, 1961. *Wilson Bull.*, 73:268-278; Parkes and Clark, 1964. *Wilson Bull.*, 76:147-154) stress the paucity of information on Scolopacidae, so some recent observations on three hand-reared Long-billed Curlews (*Numenius americanus*) seem pertinent. The set of four eggs was obtained from a nest west of Brigham City, Box Elder Co., Utah on 24 May 1966. Upon pipping, all four chicks had cream colored egg teeth on both upper and lower bills. The upper tooth was a raised projection 1 mm from the distal tip of the culmen. The lower tooth, on the distal tip of the lower mandible, was smaller, rounded, and barely raised from the surface of the bill. Both teeth were ephemeral and deciduous. In each of the three birds that survived, the lower mandibular teeth were lost on the first day after hatching, and the upper tooth persisted until the second day. The same situation has been described for the American Woodcock (*Philohela minor*) by Wetherbee and Bartlett (1962. *Auk*, 79:117), and for the Willet (*Catoptrophorus semipalmatus*) by Tomkins (1965. *Wilson Bull.*, 77:151-167). Conflicting data have been reported for other members of the genus *Numenius*. Willink (cited in Clark, op. cit.) found only a lower egg tooth in *Numenius* sp.; while Parkes and Clark (op. cit.) found only an upper bill tooth in *N. tahitiensis*.

Observations on the hatching method of *N. americanus* showed that the pip hole was started approximately one third the distance from the large end of the egg. It was progressively enlarged until a circle about 1.5 cm in diameter was formed. The chick then pushed out the large end and emerged by splitting the remaining shell into three approximately triangular pieces. This method is similar to that utilized by the