

approach from the hawk. I cautiously walked 50 yards to the cage and succeeded in closing the door. I had Mr. John T. Linehan witness my findings. With his aid, I took several pictures of the hawk and the dove (Fig. 1). I then banded and released the hawk.—CHARLES A. LESSER, *Department of Entomology, University of Delaware, Newark, Delaware, 17 May 1965.* (Published as Miscellaneous Paper No. 496 with the approval of the Delaware Agricultural Experiment Station Publication No. 359 of the Department of Entomology.)

**Soft-shelled eggs in a Bobwhite nest.**—On 17 May 1963, an unattended Bobwhite (*Colinus virginianus*) nest was found adjacent to a fence along a roadside near Bogota, Jasper County, Illinois. The nest contained seven eggs that appeared to be normal by visual examination, although the eggs were not handled. The nest was revisited on 20 May, at which time only four eggs, all soft-shelled, remained in the nest bowl. Three of these eggs were intact and one had been pecked, probably by an avian predator; very likely, avian predators had consumed the three eggs that were missing. The intact soft-shelled eggs were of normal dimensions, and were fertile (by germinal disc) but unincubated. Except for lack of a well-defined canopy, construction of the nest was characteristic of other Bobwhite nests. The nest bowl, consisting of dead leaves of redtop (*Agrostis alba*) and cheat (*Bromus secalinus*), was situated in a diffusion of blackberries (*Rubus* spp.). To our knowledge, this is the first account of soft-shelled eggs deposited in a nest by a wild Bobwhite.

Soft-shelled eggs are quite frequently produced by domestic fowl (*Gallus gallus*), especially during periods of heavy egg production (A. Romanoff and A. Romanoff, 1949. "The Avian Egg." John Wiley & Sons, Inc., New York), and also have been reported among pigeons (W. M. Levi, 1941. "The Pigeon." R. L. Bryan Co., Columbia, South Carolina). Eight soft-shelled eggs laid by wild Pheasants (*Phasianus colchicus*) occurred among 873 eggs not deposited in nests, but only one such egg was found among 10,724 eggs contained in 1,344 pheasant nests studied in Illinois during the five years 1957-61 (R. F. Labisky, unpublished data).

The immediate cause of soft-shelled eggs is either a failure of the secretive glands of the uterus to deposit the calcareous shell or violent peristalsis which prematurely speeds the egg through the uterus (Hewitt, 1939. *J. Amer. Vet. Med. Assoc.*, 95:201-210). Soft-shelled eggs may be produced by birds under conditions of unusually great disturbance, excessive feeding, or inadequate ingestion of minerals (i.e., calcium, phosphorus, and manganese) required in shell formation (Hewitt, *op. cit.*). Diseases, particularly Newcastle and bronchitis, caused domestic hens to lay thin-shelled eggs (P. D. Sturkie, 1954. *Avian physiology.* Comstock Publ. Assoc., Ithaca, New York). Among domestic fowl, induced hypothermia reduced calcium deposition and caused the premature expulsion of thin-shelled eggs (Sturkie, 1946. *Poultry Sci.*, 25:369-372). The persistent laying of soft-shelled eggs (at least four eggs) by the Bobwhite hen in a single clutch was likely indicative of a prolonged, and perhaps permanent, physiological malfunction.—JACK A. ELLIS AND RONALD F. LABISKY, *Section of Wildlife Research, Illinois Natural History Survey, Urbana, Illinois, 9 April 1965.*

**Notes on the distraction display of the Virginia Rail.**—During the summers of 1963 and 1964 I twice had the opportunity to observe in some detail the distraction or "di-

versionary" display of the Virginia Rail (*Rallus limicola*). The observations were made in a 2.4-acre cattail (*Typha latifolia*) marsh bordering Lake Wingra, in the University of Wisconsin Arboretum, at Madison.

On 12 June 1963, at 1915 hours, as I examined an empty rail nest in the marsh, an adult Virginia Rail approached the nest site, giving repeated sharp *keck* calls. It walked about the nest site at a distance of two to four meters, with both wings held widely spread and lowered. From this position it often moved forward unevenly, with head lowered, tail raised, and the wings maximally spread, approaching within one meter of me. The body feathers were not raised. The bird continued displaying for 15 minutes, dodging between cattail clumps, approaching me, then moving away. During this time another bird, presumably its mate, was heard calling in the cattails five to eight meters away, but was not seen. I then moved about 10 meters from the nest site and stood quietly for a few minutes. Within five minutes the birds ceased giving the sharp call notes, and began a lower, rather rasping "clucking" call; immediately young chicks were heard peeping. One chick, eight meters from a calling adult, was seen running through the cattails toward it.

I witnessed a similar display on 31 May 1964, again at a nest. When I first found the nest, at 2000 hours, it was empty, and coincident with my approach an adult rail gave sharp *keck* calls from the cattails nearby. When I returned to the nest at 2015 an adult was on the nest. It left the nest when I was one-half meter away, and five downy

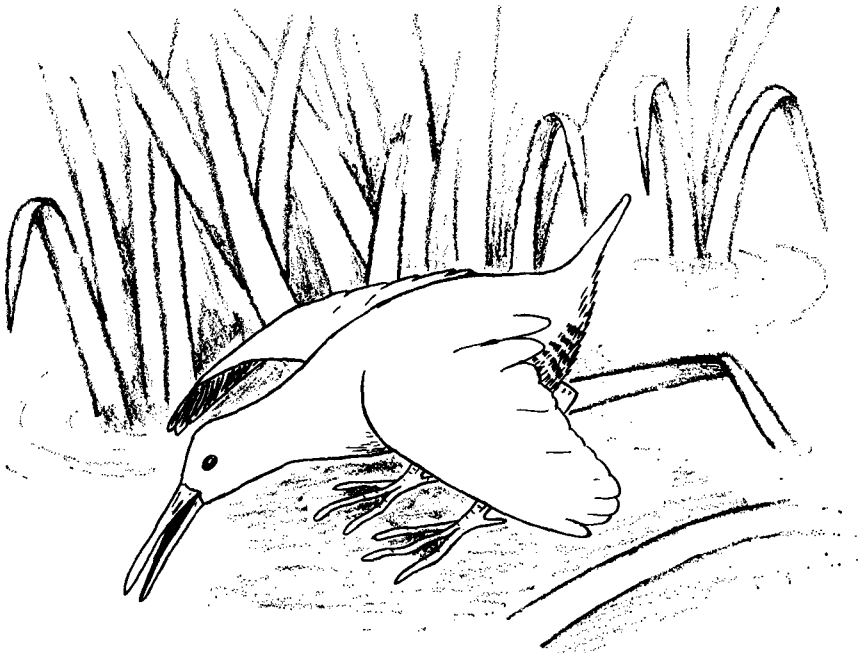


FIG. 1. Body position during distraction display. From field sketches made 31 May 1964.

chicks scattered from the nest in all directions. I caught one of the young, and as I held the chick, which remained silent, the adult ran about at a distance of one to three meters from me, with its head lowered, wings widely spread, and tail raised (Fig. 1), uttering sharp *heck* calls every two or three seconds. The body feathers were not raised. It moved erratically through the cattails, rocking from one side to the other, and occasionally beat at the water with its wings. After I released the chick, which immediately ran into a dense cattail clump, the adult moved farther away, continuing to display until I left the area, five minutes later.

Observations of distraction displays by Virginia Rails have been reported by Weber (1909. *Auk*, 26:19-22) and Pospichal and Marshall (1954. *Flicker*, 26:1-32). The bird observed by Weber, at a nest containing 10 eggs, remained near the nest, "strutting about with her feathers puffed up and wings spread like a turkey cock," uttering a low grunting sound. In contrast to this description, the birds I observed displaying did not raise the body feathers. Pospichal and Marshall reported that adults with young moved about the nest site, often walking toward the nest with head and neck bowed and outstretched and wings partially outspread and bowed, frequently giving regularly spaced rasping calls. —JOHN A. WIENS, *Department of Zoology, University of Wisconsin, Madison, Wisconsin, 1 August 1965.*

**The Carolina Parakeet in Illinois.**—Little is known about the distribution of the now extinct Carolina Parakeet (*Conuropsis carolinensis*) in Illinois. The earliest published references are in the accounts of explorers and fur traders. McKinley (1960. *Wilson Bull.*, 72:274) summarized the earlier literature on the Carolina Parakeet in the Mississippi Valley. My account summarizes the available information pertaining to the distribution of the parakeet in Illinois. Two additional records for the state are included, and corrections regarding two earlier publications are noted.

Hahn (1963. "Where is that Vanished Bird?" Royal Ontario Mus.) listed two Illinois specimens among the 720 skins and mounts and 16 skeletons possessed by various institutions and individuals. One of these specimens (Chicago Acad. Sci. Coll.) was collected by R. Kennicott in Union County, Illinois. Conflicting data are available for the date of collection: The specimen label lists 1857, but the Museum Catalog card has the note "about 1855." The second specimen (U.S. Natl. Mus. Coll.), a male, is the one listed by Baird (1858. "Pacific Railroad Survey," 9:68) as being collected at Cairo, Illinois, in about 1834, and presented to the U.S. National Museum by Kennicott. Recently Daniel McKinley informed me (letter, 18 September 1965) that this latter specimen was actually collected by J. K. Townsend, not Kennicott, and just how Kennicott got it is unknown.

Smith and Parmalee (1955. *Illinois State Mus. Pop. Sci. Ser.*, 4:36) reported a sight record (substantiated by T. E. Musselman) of a flock near Kates Lake, Adams County, about mid-April 1884. McKinley (1960. *op. cit.*) felt this represented a late date for that area.

In March 1963, while looking over the small Currier bird collection in the Aurora Historical Museum, I discovered a well-mounted Carolina Parakeet, listed as Number 17, and reported as being from the Aurora area. An actual collection date for the specimen was not given but brief notes accompanying the specimens stated that they were prepared in the 1880's. This collection was donated by Dr. Charles R. Currier, father of the late Dr. Clark Currier, and contains only locally collected specimens.

Daniel McKinley (letter, 18 September 1965 and 7 October 1965) informed me of a fourth Illinois specimen which is in the collection of the late Harold H. Bailey at Rock-