



FIG. 1. Clicks given by Long-billed Curlew nine hours prior to hatching.

as well as the frequency of clicks was noted. The clicks of *N. americanus* were physically similar to those of the Gray Partridge (*Perdix perdix*) and the Painted Quail (*Excalfactoria chinensis*) studied by Vince (op. cit., plate II).

Suggested sources of the clicking sounds include bill-shell contact, bill-clapping, and respiratory movements (see Vince, op. cit., 39). My observations on the hatching curlew chicks showed that clicks were given with the bill open and were independent of bill-shell contact. Also clicks seemed to be associated with movements of the gular region which indicates an origin of clicking in the respiratory system, a view held by Driver (Ibis, 109:434-437, 1967). The clicks are probably produced by air passing over the syrinx during the period when the respiratory system becomes functional. My observations shed no light on the functional significance of clicking. Too little is known about the nesting biology of *N. americanus* to test Vince's hypothesis that clicking serves to synchronize hatching.

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Flashes of white in the wings of other species elicit territorial behavior in a Mockingbird.—In the winter of 1969-1970 we first noted a Mockingbird (*Mimus polyglottos*) at our feeder on the morning of 23 January. On the afternoon of the following day the Mockingbird was first seen to attack other birds in the vicinity of the feeder. For the next six days we noted only chases directed to Red-bellied Woodpeckers (*Centurus carolinus*) and Evening Grosbeaks (*Hesperiphona vespertina*). Thereafter we also noted occasional attacks on Cardinals (*Richmondia cardinalis*) and Purple Finches (*Carpodacus purpureus*) and, less frequently, on White-throated Sparrows (*Zonotrichia albicollis*) and Downy Woodpeckers (*Dendrocopos pubescens*). We saw no attacks on Tufted Titmice (*Parus bicolor*), Carolina Chickadees (*P. carolinensis*), Pine Siskins (*Spinus pinus*), and American Goldfinches (*S. tristis*). Blue Jays (*Cyanocitta cristata*) drove off the

Mockingbird when attacked. Other species were seen too infrequently to comment on their relationships with the Mockingbird. The birds at our feeder apparently soon came to associate the arrival of the Mockingbird with a possible attack and birds would often flee to what appeared to be no more than the arrival of the Mockingbird. In many cases it was impossible to determine whether the fleeing of birds was caused by an attack or the mere arrival of the Mockingbird. We comment here only on what we considered to be actual attacks. Evening Grosbeaks and Red-bellied Woodpeckers were invariably attacked when they approached within 100 feet or more of the feeder; other species were chased only within a few feet of the feeder, and occasionally were not attacked even when on the feeder. The Mockingbird often chased Evening Grosbeaks and Red-bellied Woodpeckers for 100 feet or more. Chases of other species never exceeded a few feet. The Red-bellied Woodpeckers soon stopped visiting the feeder and were not seen again until 6 March, four days after the Mockingbird disappeared. The other species continued to visit the feeder although the Evening Grosbeaks rarely had an opportunity to feed.

We find it interesting that Evening Grosbeaks and Red-bellied Woodpeckers were the first species attacked and that the attacks on these two species were considerably more virulent and elicited at greater distances from the feeder than with other species. Of the birds commonly occurring at our feeder, only the Evening Grosbeak and the Red-bellied Woodpecker exhibit flashes of white in the wings while in flight, a characteristic they share with the Mockingbird. We regard these observations as a natural experiment indicating that the white markings in the wings of the Mockingbird function importantly as a "releaser" for aggressive or territorial behavior.—HELMUT C. MUELLER, *Department of Zoology, University of North Carolina, Chapel Hill*, AND NANCY S. MUELLER, *Departments of Zoology and Poultry Science, North Carolina State University, Raleigh, North Carolina, 15 March 1971*.

Robins night-roosting in open fields.—On 4 April 1966 between 20:00 and 21:00, we observed 20–23 Robins (*Turdus migratorius*) roosting on the ground in open hayfields. The Robins were found while we were capturing Ring-necked Pheasants (*Phasianus colchicus*) by nightlighting (Labisky, Illinois Nat. Hist. Surv. Biol. Notes, 62, 1968) in southeastern Livingston County, east-central Illinois. About 95 per cent of the land area in this portion of Illinois is under cultivation: corn and soybeans are the principal crops. Eight of the Robins were found in a 40-acre field that contained a mixture of oat stubble and clovers and was bordered on three sides by a mature multiflora rose (*Rosa multiflora*) hedge. The other 12–15 Robins were found in a 23-acre field that had been planted to a variety of grasses and legumes and was bordered on one end by a row of mature osage orange (*Maclura pomifera*) trees. Vegetation in both fields was about 6 inches high. These two fields, 6 miles apart, were the only fields in which we nightlighted on this particular night. Although we have nightlighted in east-central Illinois for more than 10 years and in all months except May and June, this is the only instance in which we observed Robins.

The Robins usually flushed and flew in a nearly vertical ascent when we approached in the nightlighting truck to a distance of 25 to 50 feet. However, we approached to within 10 feet of two Robins before they flushed. The Robins were roosting in small groups (2–7 birds), the individual birds being 2 to several feet apart. In addition to the Robins and Pheasants, the only other birds observed in the fields were a few Meadowlarks (*Sturnella* spp.) and an occasional passerine of undetermined species.

We speculate that the field-roosting Robins were migrants that had abruptly terminated their daily flight because of unfavorable weather: (1) the temperature was 35° F, the