

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

wind was from the northwest at 12–15 mph, the sky was overcast, and intermittent snow flurries were occurring; (2) the peak of Robin migration in east-central Illinois occurs between 20 March and 10 April (Graber et al., Illinois Nat. Hist. Surv. Biol. Notes (In press), 1971); and (3) at least some arboreal species—i.e., *Hylocichla* thrushes—do not select their typical diurnal habitat when landing in darkness (Cochran et al., Living Bird, 6:224, 1967). To our knowledge, this is the first recorded instance of Robins night-roosting in open fields.—WILLIAM L. ANDERSON, STANLEY L. ETTER, AND G. BLAIR JOSELYN, *Illinois Natural History Survey, Urbana, Illinois 61801, 8 February 1971.*

Further notes on the juvenal plumage of the Spotted Rail (*Rallus maculatus*).—Dickerman and Parkes (Wilson Bull. 81:207–209, 1969) described three sooty plumaged juvenile Spotted Rails (*Rallus maculatus*) from Mexico that differed strikingly from three juveniles from Trinidad and southern South America. The difference was suggested as the most diagnostic character of *R. m. insolitus*, the subspecies of Mexico and Central America. Haverschmidt found among his series of eight specimens of nominate *R. m. maculatus* from Surinam, now deposited in the Leiden Museum, a male in juvenal plumage collected 29 January 1966 at Marienburg, without black and white barring on its underparts (as mentioned in his "Birds of Surinam," 1968), which appeared identical to the Mexican specimen illustrated by Dickerman and Parkes (ibid.). A second specimen from his collection, a female collected at Paramaribo, 28 December 1966, is late in the first prebasic (postjuvenal) molt, but retains juvenal feathers on the throat, lower breast and abdomen. These feathers are distinctly barred with white. Thus two juveniles from Surinam exhibit the differences described by Dickerman and Parkes for the juveniles *R. m. insolitus* and *R. m. maculatus*.

These two juveniles and three adults from Surinam in Haverschmidt's collection were sent to the American Museum of Natural History where Dickerman was able to compare them with the three Mexican juveniles and ten other juvenile *R. m. maculatus*, including two very small flightless birds, one previously illustrated taken 23 September 1950 in the Caroni Swamp of Trinidad, and one taken 7 November 1961 at Concepcion, Corrientes Prov., Argentina. It appears that there are three distinct patterns and varying intermediate patterns of juvenal plumage. In all three phases the feathers of the lower belly and flanks are more strongly barred than are those of the breast and upper belly.

1. *Dark phase*—ventral feathers sooty, tipped with darker, lacking white barring (Fig. 1: see also illustration in Dickerman and Parkes, ibid). Specimens examined: Mexico 3 (1 Veracruz, 2 Oaxaca); Surinam 1 (Marienburg); Brazil 2 (São Paulo). The latter specimens while dusky below, have feathers more strongly barred with pale buff, and thus are intermediate between the dark phase and the barred phase.
2. *Pale phase*—feathers of throat and breast pale grayish brown, the latter *weakly barred* with white. Specimens examined: Brazil 2 (São Paulo), Argentina 1 (Barrancas al Sud); Trinidad 1. The Argentine specimen is in late first prebasic molt and may be faded, but is more similar to the pale than to the barred phase. From the description in Dickerman and Parkes the juvenile from Paraguay (Field Museum Natural History) is also apparently of this color phase. The Trinidad specimen was illustrated in Dickerman and Parkes.
3. *Barred phase*—throat gray, feathers of breast and belly sharply barred with white, throat feathers spotted with white (see illustration Dickerman and Parkes, ibid). Species examined: Argentina 2 (Barrancas al Sud and Concepcion); Brazil 2 (São Paulo); Surinam 1 (Paramaribo). The Surinam specimen is somewhat more