

Ring-billed Gulls feed on flying ants.—On one to three late afternoons almost every autumn in the last decade we have observed peculiar aerial "fly-catching" behavior in gulls at the Cedar Grove Ornithological Station, some 40 miles north of Milwaukee, Wisconsin, on the west shore of Lake Michigan. The gulls would circle, frequently changing direction and speed, and would snap at tiny insects with their beaks. The gulls occurred in wheeling flocks of 20 to 50 birds at a height of 45 to 150 feet over sparsely vegetated, sandy areas. A survey of 2 miles of lake front on one occasion yielded an estimate of 2,000 fly-catching gulls.

In 1958 we noted that this peculiar behavior of gulls coincided with the swarming or nuptial flights of a small brown ant. Since 1958 we have observed autumnal swarming of ants and fly-catching behavior of gulls on 9 occasions: 13 September 1958, 29 August 1959, 2 September 1960, 26 and 28 August and 22 September 1961, and 16, 17, and 18 September 1963.

Whenever we saw gulls catching insects in flight, we saw ants swarming. Every time we observed ants swarming we saw gulls catching insects in flight. Every presumed ant-catching gull identified as to species was a Ring-billed Gull (*Larus delawarensis*). Herring Gulls (*L. argentatus*) often flew past and once through a group of ant-catching Ring-billed Gulls. Common or Forster's Terns (*Sterna hirundo* or *forsteri*), nighthawks (*Chordeiles minor*), and Cedar Waxwings (*Bombycilla cedrorum*) were seen catching flying ants; each species did so on only a single occasion.

The gulls appeared to swallow the insects. No preening, anointing of plumage, or typical "anting" (cf. Whitaker, *Wilson Bull.*, 69: 195-262, 1957) were observed. Ring-billed Gulls commonly feed on "worms, grubs, grasshoppers, and other insects" (Bent, *U. S. Natl. Mus., Bull.* 113, 1921; see p. 137). We have seen the regurgitated remains of large beetles in Ring-billed Gull nesting colonies. J. A. Allen is quoted in Baird, Brewer, and Ridgway (*Mem. Mus. Comp. Zool., Harvard*, 13: 246-247, 1884) as having observed Ring-billed Gulls taking grasshoppers in flight.

The ants on which the gulls presumably were preying were identified as *Lasius alienus americanus* Emery, a common Holarctic species. These ants are exceedingly common in the area of the station with about one "hill" per 10 square yards of suitable open habitat. The ants are very small; winged females are about 5 to 6 mm long, and males are only 3 mm long. It is difficult to believe that the gulls would pursue these tiny insects if they were only another source of protein.

We thank Professor John C. Neess for identifying our ant collections.—HELMUT C. MUELLER, *Department of Zoology, University of Wisconsin, Madison, Wisconsin*, and DANIEL D. BERGER, *Cedar Grove Ornithological Station, Cedar Grove, Wisconsin*.

Testicular response to an increased photoperiod in the Brown-headed Cowbird.—In the course of studies of the testicular cycle of the Brown-headed Cowbird (*Molothrus ater*) at London, Ontario, Canada, in 1961-62 (A. L. A. Middleton, M. Sc. thesis, University of Western Ontario), we conducted two short experiments to determine if the cowbirds show a testicular response to photoperiodic stimulation.

Experimental birds were drawn from a large captive population necessary for the main study. These birds were kept in a section of the greenhouse at the University of Western Ontario under as near natural light conditions as possible and at a temperature thermostatically controlled within two degrees of 15° C.

In the first experiment, run from 27 September 1961 until 14 November 1961, 18 birds were kept in cages measuring 2½ × 1 × 1 feet. These were placed in a darkroom illuminated by two 40-watt daylight fluorescent lights yielding a maximum and mini-