According to Baird and Smith (op. cit.), it seems improbable that the Common Grackle attacks and kills a healthy adult bird; however, a Common Grackle may attack healthy birds while they are feeding or resting on the ground. Such attacks appear to be directed only at small birds and to occur on rare occasions.—PIERRE LAPORTE, *6530 Wilderton, Apartment 30, Montreal, Quebec, Canada, H3S 2L5.* *Accepted 12 June 1974.*

Unusual feeding habits in two species of blackbirds.—On several occasions in the period 6–10 June 1972, near Grantsburg, Pope County, Illinois, the senior author observed unusual feeding habits in a mixed flock of Red-winged Blackbirds (*Agelaius phoeniceus*) and Brewer's Blackbirds (*Euphagus cyanocephalus*). The flock, numbering approximately 300 individuals, and also including Brown-headed Cowbirds (*Molothrus ater*), was following a tractor during the disking of a 162 ha field. Many food items were unearthed as the fresh soil was exposed, and the birds were making concerted use of this prey source. As the tractor moved forward, birds from the rear of the flock would rise, fly to the front of the flock, and settle again to resume feeding. With these rear-to-front movements, the flock had an appearance similar to that described in Bent (U.S. Nat. Mus. Bull., 211, 1958), i.e., of a rolling black mass, as it followed the tractor about the field.

Mixed flocks of icterids following tractors during plowing operations are not unusual and have also been described previously (Beal, U.S. Dept. Agric. Farmers Bull., 630, 1926; Bent, op. cit.). The uniqueness of the feeding behavior reported here lies in the type of prey items taken by the two species of blackbirds. These included adult Orthoptera and Coleoptera, larval Lepidoptera, a number of forms of Arachnida, Annelida, amphibians, and mammals.

Normal food items of these blackbirds consist of both animal and vegetable matter, but the animal component is almost exclusively comprised of insects. Stomach analysis of 1,372 Red-winged and 654 Brewer's Blackbirds showed no vertebrate material in the diet (Beal, U.S. Dept. Agric. Biol. Surv. Bull., 13, 1900; Bent, op. cit.; Neff and Meanley, Wilson Bull., 69:102–105, 1957; and Soriano, Calif. Fish and Game, 17:361–395, 1931). Bendire (U.S. Nat. Mus. Spec. Bull., 3, 1895) makes brief reference to having found salamander remains in the stomachs of Redwings; however, ours apparently represents the first report of these two blackbird species feeding on frogs and mice.

The field was characterized by three distinct physiographic delineations: floodplain, sloughs, and a ridge. Most of the field was situated in floodplain, an area subject to periodic inundations by backwaters of the nearby Ohio River. Sloughs occurred throughout the floodplain, and their open waters were interspersed with dense stands of cattails (*Typha latifolia*), marsh grass (*Spartina* spp.), and other plants. The ridge area was several ft above the high water level and extended over about two to three percent of the area. A survey of the mammal populations showed the floodplain to be sparsely populated with two species of rodents: the deer mouse (*Peromyscus maniculatus*), which was distributed evenly throughout the area, and the meadow jumping mouse (*Zapus hudsonius*), which was restricted to the dense vegetation around the sloughs. The rodent density of the combined floodplain-slough area was 12.4 mammals per ha. The ridge was densely populated by prairie voles (*Microtus ochrogaster*), occurring at a density in excess of 250 per ha. This unusually high density (the density in nearby fields averaged 35 voles per ha) is thought to be the result of a recent flooding, which forced voles from the slough and floodplain areas to the refuge of the ridge. In addition to mammals, cricket frogs (*Acris crepitans*) and leopard frogs (*Rana pipiens*) inhabited the marsh grass

around the sloughs, but only young leopard frogs were observed on the floodplain away from standing water.

Blackbirds readily took and swallowed whole young leopard frogs that plowing operations disturbed in the field. The birds also pursued any adult mice that were flushed by the tractor, but both species always managed to out-distance the blackbirds, and no captures were observed. On the other hand, the blackbirds readily caught and ate nestling and juvenile voles that were present along the ridge portion of the field. As the disk would expose the voles, the blackbirds would hastily hop about, striking at the fleeing animals with their beaks. Very young voles, estimated to be from 10–14 days old and weighing up to 12 g, were easily captured and swallowed whole. Larger subadults were incapacitated by incessant pecking and then eviscerated. As adult voles were exposed, they would run distances of 3 to 5 m and then flatten themselves out on the loose soil or burrow underground. At times as many as three to four blackbirds would pursue these adults, but no captures were observed. Several times fleeing adult females had suckling young plucked from their mammae.

Following the blackbird flock and occasionally mixing with it were two to three Common Crows (*Corvus brachyrhynchos*). These were feeding mainly on the insects and annelids, as well as on the remains of the young voles that had been killed but not entirely eaten by the blackbirds. Several times the crows were observed to displace blackbirds from a freshly killed subadult vole. The cowbirds in the flock were not observed to feed on the mammals or amphibians.

Blackbird social systems, particularly that of the Redwing (Orians, Ecol. Monogr., 31:285–312, 1961) are thought to have developed in response to their food resources being distributed in a patchy manner. It follows that under these circumstances, these birds would tend to be opportunistic generalists (after Schoener, Ann. Rev. Ecol. Syst., 2:369–404, 1971), capitalizing on high-energy-content food when available. The facility and frequency with which both the Red-winged and Brewer's Blackbirds took the amphibians and young mammals suggest that this prey is perhaps not uncommon food, being captured and eaten whenever available.—LARRY E. BEASLEY, *Department of Zoology, University of Illinois, Urbana, Illinois 61801, and* STEVEN W. CAROTHERS, *Museum of Northern Arizona, Harold S. Colton Research Center, Flagstaff, Arizona 86001.* *Accepted 11 July 1974.*

Notes on birds at swarms of army ants in the highlands of Colombia.—Birds at army ant raids in the neotropical lowlands have been mentioned by numerous authors and studied extensively by Willis (Living Bird, 5:187, 1966; Univ. Calif. Publ. Zool., 79, 1967; Amer. Ornithol. Union Monog., 10, 1972). In cooler highland forests, one of the most important ants followed by birds, *Eciton burchelli*, becomes increasingly scarce, and the birds that depend upon it are seldom found above 1,000 m elevation (Willis, Univ. Calif. Publ. Zool., op. cit.:6). The only other ant species commonly followed by birds, *Labidus praedator*, swarms less predictably, but it may be more important to highland birds as it ranges to higher elevations. The biology of this ant has not been studied.

As a result of the decreased importance of army ants and of ant-following birds at higher elevations, little has been reported about the highland birds that may take occasional advantage of this unpredictable food source. I have observations at seven swarms of small black ants, presumably *L. praedator*, made between elevations of 980 and 1,250 m in the Anchicaya Valley (3° 32′ N, 76° 48′ W), on the Pacific slope of the Western Andes, Colombia. During these observations I saw five species of birds not previously