

circular mound. For a period of about 3 hours between 1630 h and sunset, from one to five yellow jackets fed constantly on the carcass.

The morning of 2 October the wasps were again feeding on the dead thrush, but the pile of feathers had become scattered. About 0830 h, a Gray Squirrel (*Sciurus carolinensis*) discovered the bird and proceeded to tear it apart to obtain food from the wings, head, and belly. Following the squirrel as it carried the prey several feet away, the wasps repeatedly attempted to continue feeding on the bird, but they apparently did not sting their competitor. After the squirrel abandoned the carcass, the yellow jackets removed shreds of flesh from the bones and feathers until sometime in the afternoon of 2 October.

Vespine species are known to prey on flies, honeybees, and other insects and also to "carve pieces from fruit and dead vertebrates" (Edward O. Wilson, *The Insect Societies*, The Belknap Press of Harvard University Press, Cambridge, Mass., 1976, p. 20-21). Gilbert S. Grant (pers. comm.) reports that yellow jackets regularly pick flesh from the waste when he cleans fish outdoors and that he has seen as many as 20 to 30 yellow jackets feeding on the brain of a slaughtered sheep. Yellow jackets' taste for meat will not surprise any picnicker who has unwillingly shared a ham sandwich with them.

Although yellow jackets are well known as scavengers, I have found no reports, published or otherwise, of their plucking feathers from dead birds, nor have I seen that behavior again during the 24 years that have elapsed since my 1968 observation. The wasps' role in the process of decomposition is undoubtedly obscured by subsequent feeding by other species. Had I seen only the activity following the arrival of the squirrel, I certainly would have viewed the mammal as the primary scavenger and would have been totally unaware that the yellow jackets had plucked feathers from the breast of the dead Swainson's Thrush before feeding on its carcass.

## **Opportunistic Foraging on Swarming Ants by Gulls, Shorebirds, and Grackles**

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Gulls are opportunistic omnivores, which feed on a variety of fish (live and dead), garbage, berries, rodents, bird eggs, and insects (Bent 1963). Seymour (1972) observed three species of gulls hawking ants, and Harlow (1971) and Baird and Meyerriicks (1965) observed many species, primarily passerines, feeding on swarming ants. Lee and Clark (1981) reported on Common Terns (*Sterna hirundo*) feeding on insects over land on Bodie and Pea Islands, North Carolina. In this note I describe an episode of aerial feeding on swarming ants by gulls and feeding on grounded ants by gulls, shorebirds, and grackles.

Between 1500 and 1600 h on 14 November 1988 I observed 12-15 Laughing Gulls (*Larus atricilla*) soaring in a thermal above my yard in Sneads Ferry, Onslow County, North Carolina. Upon closer inspection with binoculars,

I saw that these gulls were hawking, catching, and swallowing insects. Scores of prey were captured by these gulls during about fifteen minutes of close observation. On several occasions immediately after prey capture, the gulls extended their necks and opened their beaks (movements resembled regurgitation behavior). In a few instances these movements were accompanied by brief apparent distress calls.

I was unable to identify positively the species of flying insect prey the gulls were eating. However, females from a colony of ants (*Lasius neoniger* Emery) were swarming in my yard at the same time. These ants flew upward and the thermal appeared to carry them up to the gulls. I strongly suspect that the aerial prey taken by these Laughing Gulls was the swarming ants from this colony. The distress calls and regurgitation behaviors suggested that some of the gulls were bitten or received an oral dose of repellent chemicals from these ants. *Lasius* and related genera lack stingers, but possess mandibular and Dufour's glands and can spray the contents of these glands (Holldobler and Wilson 1990).

The second episode was of gulls, shorebirds and grackles feeding on swarming ants between 1600 and 1725 h on 30 May 1990 on North Topsail Beach, Onslow County, NC. On this occasion, incoming tides were washing tens of thousands of winged ants onto the beach. Some were dead, but many were still alive though apparently unable to take flight again. I counted 175 ants in a 30 cm by 7.5 cm area of the tidal driftline. The beach was similarly littered with ants for a distance of 300–400 m. I observed 3 immature Herring Gulls (*L. argentatus*), 4 Red Knots (*Calidris canutus*), 1 Willet (*Catoptrophorus semipalmatus*), about 70 Sanderlings (*Calidris alba*), and 2 Boat-tailed Grackles (*Quiscalus major*) walking among these ants and feeding on them. No distress behavior resulting from sprayed chemicals, biting, or stinging was seen in these feeding birds. Several Barn Swallow (*Hirundo rustica*) and Purple Martins (*Progne subis*) were observed flying about 0.4 m above this tidal driftline of ants. In contrast to the other species, the swallows and martins were not seen actually feeding on these ants. Several recent papers (Sealy 1982, Erskine 1984, Hobson and Sealy 1987) describe swallows ground-feeding on swarming insects (midges and mayflies). I returned to this area on 31 May, 1 June, and 3 June 1990. Only a few ants were found on those dates.

David L Stephan identified representative ants that I collected at the site. Sixty-eight (91%) were *Lasius umbratus* (Nylander) and 7 (5 males, 2 females; 9%) were *Formica* sp. Winds apparently carried these swarming ants out over the ocean, where they fell to the water when they became exhausted or when the winds diminished. Tidal currents then washed them to the beach. Insects have been caught in flight far out to sea, carried there passively by moving air masses (Johnson 1969). Ants were found in the digestive tract of a post-hatchling Loggerhead Turtle (*Caretta caretta*) collected at the edge of the Gulf Stream 75 km off St. Augustine, FL (Richardson and McGillivray 1991).

In summary, these observations of aerial feeding and ground feeding on swarming ants by gulls and shorebirds illustrate opportunistic feeding on a temporary, superabundant food source.

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#### LITERATURE CITED

- Baird, J. and A.J. Meyerriecks. 1965. Birds feeding on an ant mating swarm. *Wilson Bull.* 77:89-91.
- Bent, A. C. 1963. Life histories of North American gulls and terns. U.S. Natl. Mus. Bull. 113. Dover Publ., New York.
- Erskine, A.J. 1984. Swallows foraging on the ground. *Wilson Bull.* 96:136-137.
- Harlow, R.A., Jr. 1971. Birds feeding on an ant mating swarm in Maine. *Wilson Bull.* 83:201-202.
- Hobson, K.A. and S.G. Sealy. 1987. Foraging, scavenging, and other behavior of swallows on the ground. *Wilson Bull.* 99:111-116.
- Holldobler, B. and E.O. Wilson. 1990. *The Ants*. Belknap Press, Cambridge, Mass.
- Johnson, C.G. 1969. *Migration and Dispersal of Insects by Flight*. Methuen Publ., London.
- Lee, D.S. and M.K. Clark. 1981. Common Terns foraging over land. *Chat* 45:73.
- Richardson, J.I. and P. McGillivray. 1991. Post-hatching Loggerhead Turtles eat insects in Sargassum community. *Marine Turtle Newsletter* 55:2-5.
- Sealy, S.G. 1982. Rough-winged Swallows scavenging adult midges. *Wilson Bull.* 94:368-369.
- Seymour, N.R. 1972. Success of three gull species feeding on swarming ants in Antigonish County, Nova Scotia. *Canadian Field-Nat.* 86:391-392.

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