pair is required to habituate the owners to their presence. This persistence may be typical of House Sparrows, for they can displace species from nests by constant harassment and then use the sites themselves (Bent 1958, Summers-Smith 1963, Werler and Franks 1975, Burger 1976).

These cases demonstrate that House Sparrows nesting in clumps in trees are as aggressive towards strangers as expected from the observations at box nests (see also Summers-Smith 1963). Even so, pairs of birds nesting in close proximity (in the same tree, nests less than 1 m apart) can adjust to each other's presence to the degree that communal nest structures are built. Since only sparrows from distant nests are repulsed, neighbors probably recognize each other by sight (Weeden and Falls 1959, Emlen 1977, Moseley 1979).

The observations described above suggest that House Sparrows at this site have some of the behavioral characteristics which allow highly colonial and communal nesting similar to the Spanish Sparrow (*P. hispaniolensis*; Gavrilov 1963). The tolerance of neighbors and the use of existing nests as building substrates could lead to grouped and communal House Sparrow nests wherever fitness is enhanced by the association (McGillivray 1980).

P. E. Lowther, R. F. Johnston, H. Levenson, J. Bucher, R. Arrigo, and S. McGillivray all improved the manuscript with their comments. This work was supported by NSF grant BMS 76-02225 to R. F. Johnston.

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Chimney Swift Tries to Steal Prey from Purple Martin.—At about 2015 on 20 August 1978 near a Purple Martin (*Progne subis*) colony in Sherman, Grayson Co., Texas, I was watching a female martin that had caught a dragonfly (Odonata) as she flew about 15 m above me. She seemed to be "juggling" the dragonfly in her beak, apparently trying to position it headfirst for swallowing. She briefly hovered as she juggled it. Four Chimney Swifts (*Chaetura pelagica*) appeared and began closely following the martin. One swift flew alongside the martin, and on three separate occasions grabbed the dragonfly with its beak in an obvious attempt to steal the dragonfly. The martin never lost possession of it, however, and continued to fly, while two of the other swifts chased the martin for 10–15 sec. The swift that had tried to rob the martin flew away. The martin then flew to the colony, and, although earlier she seemed intent to eat the dragonfly, she fed it to a fledged juvenile.

This interaction is interesting for several reasons. Although little information is available on swift diet, a dragonfly seems unusually large prey for a Chimney Swift if indeed the swift was trying to steal it for food. However, Lack (Swifts in a Tower, Methuen and

Co., London, 1956) listed "small dragonflies" as food of the Common Swift (*Apus apus*). If food-robbing was not the purpose, perhaps this swift and the other three (a family group?) were "playfully" harassing the martin. Swifts are common near this martin colony, and martins and swifts forage together there. I have seen Chimney Swifts frequently chase Purple Martins for 3–10 sec. Only on this occasion was a swift seen attempting to steal food from a martin, but it now appears that food piracy may be a possible motive for some of these chases. Because dragonflies are large and visible whenever martins juggle them in flight and transport them to the young, capture of these prey by martins may present swifts with suitable robbing opportunities.—CHARLES R. BROWN, *2601 Turtle Creek, Sherman, TX 75090.* Received 27 March 1980; accepted 5 May 1980.

Opportunistic Scavenging by Shorebirds: Feeding Behavior and Aggression.—Many species of shorebirds feed opportunistically and can exploit invertebrates and even plant foods in different habitats or at different seasons (Bent, U.S. Natl. Mus. Bull. 142, 146, 1927, 1929). Relatively few species of shorebirds feed regularly on live fish, although a few feed occasionally on small fish (Bent, op. cit.; Witherby et al., Handbook of British Birds, Witherby Co., London; Rand, Wilson Bull. 69:186–187, 1957). Several species feed on flies and maggots associated with fish offal (Bent, op. cit.) or with seal carcasses (Preble and McAtee, N. Am. Fauna, No. 146, 1923; Stejneger, U.S. Natl. Mus. Bull. 29, 1885). A few shorebirds also feed occasionally on dead animals. Bent (op. cit.) reports a Black-bellied Plover (*Pluvialis squatarola*) eating a dead crab, and Weston (Auk 80:550–551, 1963) reports Killdeer (*Charadrius vociferus*), Common Snipe (*Gallinago gallinago*), and Greater Yellowlegs (*Tringa melanoleucus*) feeding on pollution-killed fish during a winter storm. Sanderlings (*Calidris alba*) and Ruddy Turnstones (*Arenaria interpres*) occasionally eat dead fish (Rand, op. cit.; Boer and VanOrden, Limosa 36:141–183, 1962).

On 3 and 4 January 1979, on a beach at Galveston, Texas, we observed a group of gulls and shorebirds feeding on the fish carcasses that had been discarded by commercial seine fishermen. The fish included mullet (*Mugil* spp.), sheepshead (*Archosargus probatocephalus*), speckled sea trout (*Cynosion nebulosus*), red drum (*Cyanops ocellata*), and sea catfish (*Arius felis*). Within 10 min after the men departed each day, Herring Gulls (*Larus argentatus*) began feeding, and shorebirds immediately joined the group.

One area we studied contained 24 mullet (snout–vent lengths 24–45 cm) scattered along 140 m of beach just below the high tide line. The fish had been dead since the previous day, and their condition varied from intact with only the eyes removed to completely disembowelled. None of the fish contained maggots, and the birds we watched definitely ate bits of flesh, not just flies or maggots.

We counted the birds within 50 m of the fish, those feeding on the carcasses, and timed feeding bouts (length of time spent feeding at a particular fish before stopping or switching fish). We divided the data into two sets, one for high bird density (number of birds greater than number of fish), and one for low bird density (occurring at high tide when the birds moved away from the advancing water). Interactions between species and age classes of the gulls were noted as follows. Young gulls were birds hatched the previous year (about 7 months old), subadult Herring Gulls were 1.5 to 3.5 years old, and subadult Ring-billed Gulls (*L. delawarensis*) were 1.5 to 2.5 years old (Burger and Gochfeld, Auk 96:806–808, 1979).

Feeding behavior.—The numbers of birds present are shown in Table 1. All shorebirds present within 50 m of the fish were actually feeding on them, except for four Sanderlings. The single Black-bellied Plover fed for less than 5 min, and it did not interact with other birds. It fed by pecking at the abdominal cavity of several fish for periods of less than 5 sec, and then fed continuously on another fish for 117 sec. All four Turnstones fed througout the observation period, mainly by pecking at the fish orbits. Turnstones were among the first birds to leave when the tide rose. The Willet (*Catoptrophorus semipalmatus*) pecked rapidly (about 3 pecks/sec) at the orbits and gills of the dead fish. Sanderlings moved about quickly from fish to fish, feeding mainly by pecking at the orbits. One Sanderling repeatedly pecked at the exposed abdominal flesh of one fish to which it returned several times. The gulls were responsible for opening up the fish by tearing