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Communal Nesting in the House Sparrow.—During a study of House Sparrow (*Passer domesticus*) demography on a ranch near Calgary, Alberta, in 1977, I noted an unusual spatial distribution of nests. Nests and nest sites were closely grouped; in one row of 34 blue spruce (*Picea pungens*) trees, 110 nests were found. The mean distance from a nest to its nearest neighbor was 0.66 m. In some instances, up to 4 nests were joined into a single communal structure. Typically, House Sparrow tree nests are widely spaced (Summers-Smith 1963). Throughout the breeding season of 1977, while monitoring individual nests with a 20× telescope, I saw agonistic encounters between nest owners and intruding House Sparrows at 26 nest boxes on the ranch (mean distance from a box to its nearest neighbor = 3 m) but not at tree nests. The thick blue spruce foliage may have hidden intruders at tree nests both from me and nest owners; nonetheless, with communal nests, adjacent pairs of tree-nesting sparrows must have tolerated each other's presence to a degree not observed at box nests.

These observations led to the present study on tree-nest building by House Sparrows and the development of mutual tolerance in neighboring pairs. I followed nest building from 20 April to 4 May 1978 and noted (1) whether nest-building procedures at tree sites were different from those at box nests and described by Summers-Smith (1963); (2) whether birds reacted to neighbors (birds nesting within 1 m) differently from how they reacted to strangers; and (3) how it was possible for a pair to build a nest beside an existing nest.

Patterns of nest building at tree sites were similar to those described by Summers-Smith (1963). A dominant feature of the period was the frequency with which nest material was stolen from other House Sparrow nests. Usually, outer pieces of straw were taken, but on several occasions a bird entered another's nest and removed feathers from its lining. Both males and females did this but never in a neighbor's nest. Birds seen stealing nest material did so from nests in other trees along the row. Stealing nest material was not observed at nest boxes but it was described by Summers-Smith (1963).

If an intruding sparrow was detected in a nest tree by the residents, it was chased from the area, usually by the male. Any action of the intruder which increased its detectability increased the likelihood it would be chased. Yet, pairs of birds with nests in the same tree could perch and call side by side without obvious antagonism. In one instance where two nests were joined, the two males perched together on top of the nest, while their mates worked jointly on the structure.

In another case, two pairs of sparrows were working on nests about 30 cm apart in a tree. An intruding male approached and was immediately chased by one nest owner, *A*. When *A* returned, neighbor *B* was perched beside *A*'s nest. *A* resumed nest building apparently unconcerned by the presence of *B*, in direct contrast to *A*'s aggression a moment earlier against the intruder.

I observed a color-banded male, *C*, excavating a nest in the side and bottom of an established sparrow nest. This male avoided contact with the male resident, *D*, by keeping to the opposite side of the nest. That a bird could "hide" in this manner is partly attributable to the thickness of the blue spruce foliage. I watched these activities for 5 min until a neighboring male, *E*, (inter-nest distance = 0.5 m) returned and chased the intruder. However, *C* persisted, mated and initiated a clutch in *D*'s hollowed-out nest. The two neighbors *D* and *E* could coexist without interaction, but it was clear that the initial presence of the intruder bothered both of them. This implies that attempts to establish a nest site in or near an existing nest are repulsed by the nest owner, but that eventually the new pairs' presence is accepted and they are allowed to nest. Persistence by each new

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).

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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