

1972 and November 1973. All birds were observed outside my study window in an area baited with mixed bird seed, for a total of 157 bouts. White-crowned Sparrows rarely migrate through this area, but I made some observations of an immature on 28 October 1972 and further observations of a flock of adults at Falcon State Park, Texas on 4 January 1974 for a combined total of 80 bouts.

The data (Fig. 1) conform to the predicted "geometric decay" function, with correlation coefficients being -0.996 for the Fox Sparrow and -0.984 for the White-crowned Sparrow. Slopes of the least-squares regression lines are virtually identical, meaning that the constant probability of adding another scratch is the same for the 2 sets of data.

The match between prediction and data for all 4 emberizine species now observed seems sufficient to suggest that scratching bouts obey the same rules for all emberizines, although a check on the rather different towhees (*Pipilo*) would be desirable. The generality of results encourages investigation of the factors that dictate the value of the parameter (slope), which I suggested (Hailman 1974, op. cit.) might be governed by the environmental circumstances, particularly the amount of leaf-litter. The leaf-scratching of emberizines thus provides an opportunity for a detailed, quantitative understanding of how ecological variables affect avian foraging behavior.

For comments on the manuscript I thank E. H. Burt, Jr., B. D. Sustare, and my wife Liz.—JACK P. HAILMAN, Dept. of Zoology, Univ. of Wisconsin, Madison 53706. Accepted 25 Feb. 1975.

Aerial fishing by Pied Herons.—Certain species of herons occasionally pursue prey in the air and may hover over the water, stirring it with their feet (see figure by G. Tudor in Meyerriecks, Nat. Hist. Mag. 71(6):48–59, 1962). Kushlan (Wilson Bull. 84:199–200, 1972) and Mock (Wilson Bull. 86:280–282, 1974) have discussed aerial feeding in herons. At Waigani Sewage Farm, 10 km NW of Port Moresby, Papua New Guinea, I observed Pied Herons (*Notophox picata*) feeding in flight on 3 visits, 21 and 25 August and 20 September, 1972. About 120 to 175 Pied Herons were usually standing or foraging on foot at the margin of the ponds, but at almost any time, 1 to 10 birds were observed feeding in a tern-like fashion (often with Gull-billed Terns, *Gelochelidon nilotica*) over open water near the end of a sewage pipe. Cichlid fish (apparently *Tilapia* spp.) and perhaps other forms were abundant, and both terns and herons caught fish about 5 to 10 cm in length.

The herons circled or hovered about 1–2 m above the surface, their feet usually dangling down, but not touching the water. Fish were caught on downward swoops with the bill barely entering the water, the same manner in which the terns were fishing. One heron caught fish on 2 of 5 swoops, and a group of 4 caught 7 fish on 19 swoops. The manner of flight with extended neck and dangling feet was similar to behavior described by Mock (op. cit.) for the closely related Little Blue Heron (*Florida caerulea*). Only once, however, did I see a bird land and pursue prey on foot.

Kushlan (op. cit.) and Mock (op. cit.) discuss food scarcity as predisposing to aerial feeding. Fish were clearly abundant at Waigani, but were perhaps not uniformly dispersed. Possibly in sewage flats with high biological oxygen demand, fish concentrate near the surface offering an unusual advantage to herons that can exploit them by feeding in flight. The energetic costs and benefits of such behavior, habitual aerial feeding by individuals, and comparative success of aerial and ground feeders would be interesting to examine. I thank G. S. Keith, A. Keith, W. Keith and P. V. Rich for help in the

field. E. Lindgren and A. W. Layton provided valuable information.—MICHAEL GOCHFELD, *Dept. of Biology, Queens College, Flushing, NY and Dept. of Ornithology, American Museum of Natural History, NY 10024. Accepted 8 May 1975.*

American Kestrel eating carrion.—On 8 February 1975 near Lebanon, Pennsylvania at approximately 16:00, my wife and I observed a male American Kestrel (*Falco sparverius*) eating a quite decomposed gray phase Screech Owl (*Otus asio*). We drove to within 6 m of the falcon at which time it attempted to carry the owl off, although it could only drag the carcass and after a few seconds' struggle, let go and flew to a small tree. We were road trapping at the time for kestrels, made a pass at the falcon and threw out a bal-chatri with a mouse. The kestrel struck the trap and was captured. The falcon appeared to be in good condition. His weight of 124 g is consistent with the range of male kestrel weights I have recorded in the same area. His crop was near empty.—G. ROBERT GANIS, *Route 5, Box 383, Lebanon, PA 17042. Accepted 28 Apr. 1975.*

House Sparrows usurp Hornero nests in Argentina.—The Hornero or Rufous Ovenbird, *Furnarius rufus*, is a very common bird in Argentina nesting in trees near houses and on fenceposts in the pampas (Olrog, *Las Aves Argentinas*, Inst. Miguel Lillo, Tucuman, 1959). Horneros construct dome-shaped nests of mud, rootlets, straw, and horsehair (MacDonagh, *El Hornero* 8:250-256) with a tunnel entrance leading to an inner chamber.

House Sparrows (*Passer domesticus*) were introduced into Argentina from Europe for agricultural purposes (Bibiloni and Baez, *El Hornero* 6:512-513, 1937). They nested for the first time in 1905, expanded into new areas in the 1910's, and became very abundant by the 1920's (Castellanos, *El Hornero* 5:307-338, 1934). House Sparrows were first reported using Hornero nests in the early 1920's (Castellanos, *El Hornero* 5:1-40, 1932). Little mention has been made of interactions between Horneros and House Sparrows since that time.

I observed the interactions and competition for Hornero nests between House Sparrows and Horneros on the ranches La Estanzuela, near Venado Tuerto, and San Jose, near Murphy in the province of Santa Fe, Argentina, from October through November 1972. I drilled holes in the sides of nests and inserted corks. Nesting birds were marked with paint at night by inserting a brush through the holes. This procedure was effective although some pairs repaired light leaks around the corks each day.

Hornero nests were censused between 20 and 30 October and 20 and 30 December 1972 to ascertain the extent of nest use by House Sparrows. Only new Hornero nests that appeared to be constructed in the current year were counted. Old nests usually began to break open in the rains the year after construction. Of 46 Hornero nests I located, 28 (60%) were used by Horneros, 11 (24%) were unused, and 7 (16%) were used by House Sparrows. If House Sparrows take over active Hornero nests, Horneros might selectively defend their nests against House Sparrows.

I made observations of bird behavior at Hornero nests from 20 to 30 October and from 10 to 20 November 1972. Any time any bird landed within 5 m of an Hornero's nest, I recorded the species of intruder, and the reaction of the resident Hornero. Twelve species landed near Hornero nests, *Columba picazuro*, *Columbina picua*, *Guira guira*, *Colaptes campestris*, *Pitangus sulphuratus*, *Muscivora tyrannus*, *Molothrus bonariensis*, *Passer domesticus*, *Sicalis flaveola*, *Poospiza nigrorufa*, *Embernagra platensis*, *Zonotrichia*