

American Robin feeds garter snake to its nestlings.—On 14 July 1971, at about 2750 m in the Pike National Forest, Teller Co., Colorado, I heard an unusual commotion in a robin's (*Turdus migratorius*) nest which contained 3 nestlings known to be about 10 days old. When I approached a few minutes after an adult left, I observed 2 of the nestlings simultaneously attempting to swallow a snake which was approximately 25 cm long. There was a 5 to 8 cm loop of the snake's body separating the nestlings' beaks. When I returned 10 min later with my camera, the snake had disappeared.

Since the snake appeared dead and I could not find it when I searched the nest site, I assumed that one of the nestlings swallowed it. The snake's color pattern readily identified it as a garter snake, and the only species occurring above 2438 m in Colorado is the wandering garter snake (*Thamnophis elegans*) (Maslin, Univ. of Colo. Studies, No. 6:47-53, 1959).

There are several reports in the literature of American Robins taking small snakes (Marshall, Bird Lore 23:259-260, 1921; McIntosh, Bird Lore 24:152, 1922; Friedmann, The Cowbirds, 259-260, 1929; Bent, U.S. Natl. Mus. Bull. 196:30, 1949; Davis, Wilson Bull. 81:471, 1969; and Netting, Wilson Bull. 81:471, 1969). Both McIntosh and Friedmann indicate that robins will attempt to feed small snakes to their nestlings: McIntosh reported that a robin nestling was unable to swallow a 25 to 33 cm garter snake, and Friedmann, who placed a 7-day-old Brown-headed Cowbird (*Molothrus ater*) in a robin's nest, observed the nestling swallowing a small garter snake fed by an adult robin.—MERLE L. RICHMOND, U.S. Fish and Wildlife Service, Denver Wildlife Research Center, Lakewood, CO 80225. Accepted 3 Feb. 1975.

Chipping Sparrows feeding grit to offspring.—On 20 June 1974 at LaCrosse, Wisconsin, I observed an adult Chipping Sparrow (*Spizella passerina*) land among 4 fledglings in crushed gravel about 3 m from where I stood. The fledglings spaced themselves quadrilaterally around the adult approximately .3 m apart. The adult began pecking grit about .2 cm in diameter and approached one of the offspring. As if it were being fed, the young bird gaped widely as the parent placed the grit in its mouth. The parent repeated this behavior until each fledgling had received approximately 4 pieces of grit. At this point one of the young birds started pecking grit.

I made a similar observation on 31 Aug. 1974 at the LaCrosse Municipal Airport. The observation distance was approximately 3 m, and it was clear that small pieces of gravel were being fed to the young birds. They did not, however, peck grit themselves. This behavior might be an example of learning by prompting or imitation. Such imitative behavior is of obvious importance since the intake of grit is essential in seed eaters.—DOREN CROOK, Biology Dept. Univ. of Wisconsin, LaCrosse 54601. Accepted 25 Feb. 1975.

Predation by Common Ravens on feral Rock Doves.—About 100 Rock Doves (*Columba livia*) have for many years inhabited Succor Creek Canyon, Malheur Co., Oregon. At least one pair of ravens (*Corvus corax*) inhabit the canyon. Over a 2-day period I saw ravens fly toward and dive at groups of doves sitting on projections along cliff faces. The doves were flushed by such maneuvers, but usually stayed close to the cliffs and were not pursued by the ravens. At 19:45 on 14 May 1975 one raven flushed a small group of doves from a ledge and one broke from the flock and flew 0.4 km across the canyon

closely pursued by both ravens. The dove landed on a small ledge near the base of the cliff under a narrow canopy of alder (*Alnus* sp.). Both ravens entered the trees above the dove and flushed it again. They forced the dove into the creek where it landed in an eddy along the shore. The ravens landed on the bank, one upstream and the other downstream of the dove; they chased it back and forth until one killed it with a sharp blow to the head. Without releasing its grip, the raven pulled the bird from the water and both ravens plucked and ate it.

I found several similar piles of dove feathers along the canyon walls and concluded that these piles represented predation by ravens.

On 20 May 1975 Sam Shaver and I flushed a pair of ravens from a freshly killed Chukar (*Alectoris graeca*) along Dry Creek, Malheur Co., Oregon. Evidence also suggested predation by ravens.

I am grateful to Jack Ward Thomas for improving this paper and to the Bureau of Land Management for financing my research.—CHRIS MASER, *Puget Sound Museum of Natural History, Tacoma, WA 98416*; Present address: *Range and Wildlife Habitat Laboratory, Route 2, Box 2315, La Grande, OR 97850. Accepted 5 Sept. 1975. Page costs paid.*

Hoarding of corn by Golden-fronted Woodpeckers.—During the periods 17–18 November and 14–17 December 1973, we observed Golden-fronted Woodpeckers (*Centurus aurifrons*) feeding on corn (*Zea mays*) at a Turkey (*Meleagris gallopavo*) feeding station. Shelled corn was exposed on a wooden platform (5 × 15 × 46 cm) in a wooded area 16 km E of Fort McCavett, Menard Co., Texas.

Each woodpecker would fly down to the feeder, seize a kernel of corn in its bill, fly to nearby dead live oaks (*Quercus virginiana*) and place the kernels under the bark in cracks or in other small openings. One bird worked at this operation for approximately 3 hours each day, carrying off and hoarding 30–50 corn kernels each 3-hour period. On 15 and 16 December, air temperature dropped to –10° C and never rose above 7° C. During this time woodpeckers ate about every fifth kernel by holding it with one foot and breaking the kernel into 3 or 4 manageable pieces. During both periods the woodpeckers drove Cedar Waxwings (*Bombycilla cedrorum*) and Cardinals (*Cardinalis cardinalis*) away from the corn.

There are reports of fruit and nut eating by Golden-fronted Woodpeckers (e.g., Leck, *Wilson Bull.* 81:264–269, 1969). We believe ours are the first observations of grain eating by this species, and there are no records to date of hoarding by them. Exclusion of other birds from the feeding station is consistent with behavior reported by Leck (op. cit.).—JAMES W. MARTIN AND JAMES C. KROLL, *School of Forestry, Stephen F. Austin State Univ., Nacogdoches, TX 75961. Accepted 25 July 1975. Page costs paid.*