

waddle a few steps, but fell on the breast almost at once and then usually progressed by shoving along in a prostrate position with both feet stroking together." The huddling of mother-and-brood that we observed, the largeness of eggs, and the consequent largeness of chicks at hatching all probably have survival value through reducing losses to such aquatic predators as turtles, fish, and snakes.

6008-A NORTHWEST EXPRESSWAY, OKLAHOMA CITY, OKLAHOMA 73132, JANUARY 21, 1980.

GENERAL NOTES

American Kestrel nest in Comanche County, Oklahoma.—The American Kestrel (*Falco sparverius*) is believed to breed throughout Oklahoma (Sutton, 1974, Check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 11), but so little has been reported about observed nestings that all available information on the subject deserves publication.

In the summer of 1966, a pair of kestrels nested in Elmer Thomas Park in Lawton, Comanche County, southwestern Oklahoma. The nest was in the attic of an old one-story railway station, a frame building that was moved some years ago from Elgin, Oklahoma to the grounds of the Museum of the Great Plains in Lawton. Just where in the attic the nest was I did not ascertain, but I saw the parent birds coming and going through a small hole in the gable of the building's north side.

On 16 May I saw one of the old birds enter the nest-hole. Two days later (18 May), I found a dead downy chick about 4 inches long on the ground directly below the nest-hole. On 30 May, I caught a short-tailed young female

AMERICAN KESTREL

A not quite fully fledged young female bird on its back with talons ready for action. Photographed on 30 May 1966 in Lawton, Oklahoma, by Louis E. McGee. Even in the plumage worn during their first winter, young females are distinguishable from young males by the many bars on the tail.

kestrel that had left the nest though it could fly only a little. It was on the ground about 100 meters (300 feet) from the nest-site. This bird I photographed and released (unbanded) that same day.—Louis E. McGee, 1703 N.W. 43rd St., Lawton, Oklahoma 73505, 4 February 1980.

Inca Dove and Ground Dove in Woodward County, Oklahoma.—In the fall and early winter of 1977-78, three small doves that were obviously not Mourning Doves (*Zenaida macroura*) lived on my place about 2 miles northwest of Woodward, Woodward County, northwestern Oklahoma. My son John and I saw the three birds almost daily. They went about together, sometimes feeding with other small, seed-eating birds of other species. They never seemed to be afraid of us. Their flying off at our approach seemed to be a result of natural prudence rather than of fright.

I had my first look at the three doves at about noon on 23 October. When I flushed them that day, they had been on the ground together under shrubbery near the house. As they flew toward a row of junipers nearby, I noticed reddish brown flashing from the wings of all three, the long, white-edged tail of two of them, and the comparatively short, rounded tail of the third one. I followed them about until I got a good look. The two long-tailed ones had an over-all scaly appearance and the short-tailed one's most noticeable markings were black spots on the wings. My decision that two were Inca Doves (*Scardafella inca*) and the other a Ground Dove (*Columbina passerina*) was confirmed by Paul F. Nighswonger, of Alva, Oklahoma, who saw them well on 26 November.

When Dr. Nighswonger first observed the doves that day, all three were perched close together on a board that had been part of an old greenhouse. "It was difficult to see them through the window, and when we went outside they flew. Later we had good looks at them on the ground, at a water tank, and in a tree . . . The scaling was often evident on sides, wings and breast of the Incas; they were very light-colored about the head, and in some light they had a pinkish or purplish cast . . . The Ground Dove was about the same size in body. I did see the spots on the wings that the Incas did not have" (see letter of 26 November 1977 from P. F. Nighswonger to G. M. Sutton).

The little doves occasionally ate cracked milo with Dark-eyed Juncos (*Junco hyemalis*), Tree Sparrows (*Spizella arborea*), Harris's Sparrows (*Zonotrichia querula*), and other small birds, but from what I saw of them I judged that most of their food was wild seeds found in the vicinity. During mid-day hours they liked to perch protected from the wind close to the house on a sunny perch near a ground-level birdbath through which a small stream of water flowed except in extremely cold weather. When at rest, the Inca Doves huddled close against each other, while the Ground Dove perched a few inches away.

I photographed the three little doves, but the pictures did not turn out very well. Cold spells during December and the first week of January did not seem to discourage them. During one night in December the air temperature went

down to 9° F., yet the following day all three seemed to be in good shape. I last saw them on 9 January, just before a drastic and prolonged period of cold set in. The air temperature that morning was 10° F.

It strikes me as remarkable that these two small dove species, neither of which breeds in or migrates through Oklahoma, should appear together at the same time as they did on my place in 1977-78. Neither has heretofore been reported from Woodward County, though both have been taken in northwestern Oklahoma. Two specimens of the Inca Dove, one from Harper County and one from Cimarron County, and one specimen of the Ground Dove (from Major County) have been preserved (Sutton, 1974, Check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, p. 20).—Jack Engleman, *Box 684, Woodward, Oklahoma 73801, 27 February 1980.*

Sapsucker banded in Oklahoma and recovered in Minnesota.—On 14 April 1979, I netted and banded a Yellow-bellied Sapsucker (*Sphyrapicus varius*) in my yard in Bethany, Oklahoma County, central Oklahoma. The bird had no red on its throat, so presumably it was a female. Eleven days later (25 April) it was observed by Donald C. Jansen in his yard at 1711 South Park Street in Red Wing, southeastern Minnesota. On that date it was behaving abnormally, clinging to the trunk of a maple as if sick or disabled, and refusing to fly. Even while being watched through a window, it fell to the ground, though still alive. Returned by Mr. Jansen to the maple's trunk, it clung there a while, then fell to the ground again. On the following day it was put high on a woodpile to be out of the reach of cats, but again it fell to the ground. On 27 April it died. Conceivably it had swallowed poison used in spraying trees of the neighborhood. Red Wing, Minnesota is approximately 796 miles northeast of Bethany, Oklahoma.—Hubert Harris, *4907 N. Willow, Bethany, Oklahoma 73008, 14 January 1980.*

Loggerhead Shrike observed killing Cardinal—On the evening of 25 March 1978 (weather pleasant; no snow on ground), as we were walking across an open stretch of pastureland about 5 kilometers (3 miles) east of Copan, Washington County, northeastern Oklahoma, we heard the excited squealing of a male Cardinal (*Cardinalis cardinalis*) that was flying a few feet above ground toward a plum thicket not far from us. Following the Cardinal closely, and attacking it from above — apparently with both beak and feet — was a Loggerhead Shrike (*Lanius ludovicianus*). With each attack, some of the Cardinal's body feathers were torn loose. Panic-stricken, the Cardinal plunged into the thicket.

In the thicket was a second shrike that — somewhat to our surprise — did not attack the Cardinal. With both shrikes perched close by, the Cardinal rested a few minutes, then flew from the thicket heading for oak woods about 30 meters (33 yards) away. The first shrike immediately gave chase, followed closely by the second shrike. About 25 meters (27 yards) from the thicket the first shrike grabbed the Cardinal with its feet, forcing it to earth. There,

holding the Cardinal down with its feet, it bit savagely at its prey's neck. The Cardinal soon ceased to struggle. The second shrike, which made no attempt to assist with the capture, alighted on the ground not far away. The first shrike seized the Cardinal with its bill and flew laboriously (and seemingly without destination) for about 3 meters (10 feet) and dropped its prey.

As we approached the dead bird, both shrikes flew off, the first alighting on a fence about 25 meters (28 yards) away, the second in a small tree about the same distance off. The dead Cardinal, with neck broken, was lying not far from part of a dried-up cocklebur plant (*Xanthium* sp.); the only vegetation that was at all close to the kill-site and that was also a little higher than the grass. It now appears to us — in the light of what we witnessed within the following few minutes — that the shrike had deliberately chosen to drop its prey close to this plant.

Leaving the dead Cardinal where it lay, we withdrew. When we were several meters off, and watching closely, the first shrike flew from the fence directly toward the second shrike, chasing that rival off, then returned to its prey. Now, seizing the dead Cardinal by the head, it dragged the carcass to a spot directly beneath the cocklebur. Here it pulled, lifted, and tugged, leading us to wonder why it did not pluck feathers away and start eating.

Curious about what the shrike had been up to, we approached the carcass again, once more scaring the shrike away. We found that the Cardinal's head had been tightly wedged into a narrow forking of one of the cocklebur's stems.

Our departure brought the shrike back promptly. At once it began biting off the Cardinal's head. The fork in the cocklebur stem held the carcass firmly in place: a clear example of tool-use by a bird. Once the head had been severed, the shrike held the sizeable item in its bill, glanced about as if wondering which direction to take, and flew with it toward a hedgerow of multiflora rose some 600 meters (650 yards) away. We could not find the spot to which the shrike had taken the head.

So far as we know, neither of the shrikes returned to the headless Cardinal again that day, but by early next morning the carcass was gone. Scattered feathers around the dried-up cocklebur were the only remains to be seen.

In his discussion of the behavior of *Lanius ludovicianus gambeli*, the California race of the Loggerhead Shrike, A. H. Miller (in Bent, 1950, U.S. Natl. Mus. Bull. 197: 175) states: "The impaling habit of shrikes is the result of a lack of sufficiently powerful feet to hold the prey while it is being torn to pieces, thorns or crotches being used in order to hold the food while it is being eaten."

The above account is not the first on record having to do with the killing of a Cardinal by an avian predator of weight about the same as its own. On 31 December 1967, near Norman, Cleveland County, central Oklahoma, Floyd Eoff and his son Don watched a female Loggerhead Shrike (weighing 44.5 grams) kill a male Cardinal (weighing 45.0 grams); the Eoffs did not, however, see the shrike carrying the Cardinal (see Cooksey, 1968, Bull. Oklahoma Orn.

Soc., 1: 20).—C. W. Comer, 4315 Starr, Lincoln, Nebraska 68503, and J. B. Freeland, Box 267, Dewey, Oklahoma 74029, 24 February 1980.

Palm Warbler in Washington County, Oklahoma.—On 9 May 1978, while making a census of the birdlife of a 100-acre tract just west of Dewey, Washington County, northeastern Oklahoma, I watched a Palm Warbler (*Dendroica palmarum*) in bright breeding feather as it fed in a tangle of vines and fallen branches at the edge of a small grove. Through a binocular at a distance of about 30 feet I observed its rusty cap, greenish yellow rump, yellow throat, upper breast, and under tail coverts, and white belly. Especially did I note its almost continuous tail-wagging. The whiteness of the belly made clear that it represented the western race, *D. p. palmarum*, the eastern *D. p. hypochrysea* being yellow throughout the underparts. The Palm Warbler has not heretofore been reported from Washington County, but a specimen (male, UOMZ 3355) was collected 3 miles northeast of Tulsa, Tulsa County, northeastern Oklahoma by John S. Tomer on 26 April 1958 (Tomer, 1958, Audubon Field Notes, 12: 365; Sutton, 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 513).—Ella Delap, 409 N. Wyandotte, Dewey, Oklahoma 74029, 4 August 1978.

Breeding of Kentucky Warbler in Red Rock Canyon, Caddo County, central Oklahoma.—The part of Red Rock Canyon that is south of the state park is free of the noise of campers, the walls are not suffering from human erosion, and large oak, walnut, maple, and elm trees still grow luxuriantly on the slopes, shading a mixed understory of shrubs and vines that form an almost impenetrable tangle in places. It was in such a tangle on the valley's west slope, a few hundred yards south of the park's bounding fence, on 10 June 1979, that Henry Walter and I startled a pair of Kentucky Warblers (*Oporornis formosus*), one of which was carrying insects in its bill. Scolded by the agitated birds, we searched cautiously for a while, quitting when we frightened a stub-tailed Brown-headed Cowbird (*Molothrus ater*) from the ground. The fledgling rose a scant foot or so as it flew, alighting in some vines. Both "parent" birds kept flitting about us, scolding vigorously, at times less than ten feet away. We sat quietly close by for fifteen minutes or so but saw no other young birds — either warblers or cowbirds.

The western limits of the Kentucky Warbler's breeding in Oklahoma are said to be in Payne and Cleveland counties (Sutton, 1974, Check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 38). This is a mistake, for Edwin S. Palmer collected a nest and set of three Kentucky Warbler eggs at the Kiowa Agency, 17 miles southeast of Fort Cobb, in Caddo County, in the spring of 1867 (Tyler, 1979, Birds of southwestern Oklahoma, Stovall Mus. Contr. No. 2, p. 44). Why Margaret Morse Nice (1931, Birds of Oklahoma, p. 162) failed to include this record in her thoroughgoing account of early ornithological work in the state is not clear. The nest (USNM 13542), as collected by Palmer, is at the U.S. National Museum, but the eggs seem

to have disappeared (see letter of 2 July 1979 from W. Hoffman to G. M. Sutton).

Oporornis formosus is a "common victim" of the cowbird (Friedmann, 1929, *The Cowbirds*, C. C. Thomas Publ., Springfield and Baltimore, p. 248). In Oklahoma several parasitized Kentucky Warbler nests have been found, notably in Washington County, but that species has not heretofore been observed caring for a fledged young cowbird anywhere in the state (Sutton, 1967, *Oklahoma birds*, Univ. Oklahoma Press, p. 517).—John G. Newell, 4129 N. Everest, Oklahoma City, Oklahoma 73111, 24 June 1979.

Field Sparrow in Texas County, Oklahoma, in summer.—In the afternoon on 9 July 1978 (temperature about 90°F., little wind, sky clear), while I was observing birds at the Optima Reservoir, about 6 miles northeast of Hardesty, Texas County, northwestern Oklahoma, I discovered a singing male Field Sparrow (*Spizella pusilla*). The reservoir, an impoundment of the Beaver River, was only partly filled. The several small ponds and mudflats near the river's channel were surrounded by thickets of salt cedar (*Tamarix* sp.), knotweed (*Polygonum* sp.), bulrush (*Scirpus* sp.), and other weedy plants. The sparrow was singing from the top of a salt cedar bush.

The other birds that I saw in this shrubby field habitat were Dickcissels (*Spiza americana*), Lark Sparrows (*Chondestes grammacus*), and a male Blue Grosbeak (*Guiraca caerulea*). I did not find a Field Sparrow's nest, nor did I see any Field Sparrow fledglings. I am not even sure that the singing male bird had a mate. According to Sutton (1974, *Check-list of Oklahoma birds*, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 47), *Spizella pusilla* has not heretofore been seen in summer anywhere west of the easternmost part of the Panhandle. More fieldwork is needed to document the actual nesting of the species in Texas County or, for that matter, anywhere in the Oklahoma Panhandle.—Mark Ports, Dept. Biological Sciences, Fort Hays State University, Hays, Kansas 67601, 30 June 1979.

FROM THE EDITOR: The Whooping Crane has long stood as the American archetype of endangered species. From a low of 21 birds in 1941, the population has grown to 119. Of these, there are 28 birds in three captive flocks in Maryland, Wisconsin, and Texas and 91 in two wild flocks. Fifteen of these have Sandhill Crane foster parents and migrate between Gray's Lake, Idaho, and the Rio Grande Valley of New Mexico. The others constitute the famous flock that winters on the Texas coast. The Canadian and U.S. Fish and Wildlife Services have implemented a long-range comprehensive recovery plan for the Whooping Crane. Basically, it will entail 1) renewed efforts toward managing and enlarging habitat, 2) improved law-enforcement, 3) expanded endeavors toward captive propagation, 4) continuation of the successful Sandhill Crane foster-parent program, 5) reducing mortality, 6) determining desired distribution, and 7) improving public information (from *Endangered Species Technical Bulletin*, 1980, 5(2):1 & 4).—Jack D. Tyler.