

that region north of the Cimarron River where Kingfisher, Major, and Garfield counties converge. This palustrine complex, stretching over an area of 142 mi² (368 km²), is called the Cimarron Terrace wetlands. Though temporary in nature, and usually lasting no more than about 10 years, these wet places reappear every 50 years or so (historical data and pers. comm. with local landowners), providing ideal nesting habitat for waterfowl and other lowland species (Taylor, T.J., *et al.*, 1984, Groundwater wetlands of the Cimarron Terrace, northcentral Oklahoma, Oklahoma State Univ., Stillwater). Though most of this aquatic habitat had disappeared by 1986, a few wet spots persist. They should be monitored closely by ornithologists in the future.

DEPARTMENT OF ZOOLOGY, OKLAHOMA STATE UNIVERSITY, STILLWATER 74078. 30 JANUARY 1986.

Roseate Spoonbills near Deep Fork River in Lincoln County, Oklahoma. — At 1125 hrs on 26 August 1984, I observed two large birds feeding on mudflats in a flooded field adjacent to the Deep Fork River, approximately 3 miles south and ½ mile east of Chandler, Lincoln County, central Oklahoma, near State Highway 18. I watched them for several moments from a distance of approximately 100 m (330 ft). The pair seemed unconcerned, and continued feeding among five Cattle Egrets (*Bubulcus ibis*). Observed through binoculars, the pink coloration and spoon-shaped bills identified them as Roseate Spoonbills (*Ajaia ajaja*).

The pair continued to forage, pausing occasionally to preen. When a vehicle drove by, they flushed, flew a short way, landed on another mudflat approximately ½ mile from the access road, and resumed feeding.

I and members of the Tulsa and Bartlesville Audubon societies observed the spoonbills again at 1115 hrs on 3 September. The overflow area had received rain since the previous week, and many of the previously exposed mudflats were inundated. The spoonbills were perched on a dead snag that was completely surrounded by water and no more than ¼ mile from my first sighting.

According to G. M. Sutton (1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 5), the Roseate Spoonbill is an occasional visitor to eastern Oklahoma in summer and fall, having been reported from 30 June to 15 October as far west as Alfalfa and Tillman counties. More recently, C. Clemons and J. Malinowski (1980, Bull. Oklahoma Orn. Soc. 13:20-21) observed an immature spoonbill near Lawton in Comanche County. What has been reported above constitutes the first record for Lincoln County.

There is apparently no definite record of a fully adult spoonbill in Oklahoma and all four birds collected in Choctaw County now housed in the University of Oklahoma collection are immature (see Sutton Summary of Bird Records, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman). However, I believe that the pair I observed could have been adult birds. Although they lacked crimson shoulder patches characteristic of adults, they had dark legs and bills and their over-all coloration — pink neck, wings, and body with no crimson patches — was similar to that of the winter adult described by A. C. Bent (1926, Life histories of North American marsh birds, U.S. Natl. Mus. Bull. 135, p. 18). He states that the winter plumage is achieved when the adult undergoes a complete postnuptial molt in July, August, and September, a period that coincides with

my observation. Although Bent cautions that immature birds in winter plumage may resemble winter adults, pairing is normally associated with breeding birds. According to R. S. Palmer (1976, *Handbook of North American birds*, Yale Univ. Press, Ltd., London, p. 538), Roseate Spoonbills first breed in their third year. Therefore, because the birds I saw appeared to be paired, they may well have been adults. — Nanette Erickson, *Department of Zoology, Oklahoma State University, Stillwater 74078, 8 October 1984.*

Canada Geese flying in formation with Sandhill Cranes. — On 7 December 1985, at a place 4¼ miles north of Tipton, in Tillman County, southwestern Oklahoma, between 1725 and 1735 my son Gary, Jack D. Tyler and I watched wave after wave of Sandhill Cranes (*Grus canadensis*) pass overhead as they drifted toward the North Fork of Red River two miles to the west. The day had been clear with light southwest winds and an afternoon high near 50°F. By chance we noticed flying in formation among the cranes several smaller birds whose wingbeats were faster and more regular than those of the larger birds, and which lacked the cranes' long, trailing legs. Both species were calling loudly, but the "ga-onk" calls given by the littler ones gave us to determine that they were Canada Geese (*Branta canadensis*). Three or four skeins passed over while we watched, each composed of long, shallow "V's" with a few straight lines of birds here and there. The first of these contained 800 or more Sandhills among which at least 125 geese irregularly replaced cranes in the formations. During our 10 minutes of observation, we estimated that well over 1000 cranes and more than 150 geese flew over. We had been hunting Northern Bobwhites (*Colinus virginianus*) since 0900 and had heard the cranes overhead almost constantly. Our estimate of 7000 cranes for the day was certainly conservative.

This phenomenon seems not to have been reported in the literature. Dr. James C. Lewis, Whooping Crane Coordinator for the U.S. Fish and Wildlife Service, and federal biologist Rod Drewien are unaware of any published references (letter of 20 March 1986 from Lewis to Tyler). The following is quoted from Lewis's letter: ". . . there are a few local areas where it is frequently seen. Sandhill cranes and whooping cranes are seen flying in formation with Canada geese on the summer grounds in Idaho where all three species associate and feed in grain fields in late summer. In New Mexico the two crane species are seen in formation flying with snow geese. The three species often feed together in harvested corn fields and in alfalfa and their flights are to and from these feeding areas. Sandhill cranes are less frequently seen in flight with Canada geese along the Platte River, Nebraska where both occasionally feed together in corn fields." — Jack L. Orr, *Department of Biology, Cameron University, Lawton, Oklahoma 73505, 20 February 1986.*

Second record of Mississippi Kite in Delaware County, Oklahoma.— From 1157 to 1159 on 4 July 1985, I watched an adult Mississippi Kite (*Ictinia mississippiensis*) circle on a thermal above the mouth of Brush Creek and adjoining portions of Lake Eucha, about 5 miles south of Jay, in Delaware County, far northeastern Oklahoma. This location is about ½ mile west of the 1981 location where another kite was observed by several persons on 26 June (Lawson, R.S., and L.A. Langston, 1981, *Bull. Oklahoma Orn. Soc.* 14:22-23).

The kite soon drifted out of sight south of the lake.—F.M. Baumgartner, *Little Lewis Whirlwind Sanctuary, Rt. 2, Jay, Oklahoma 74346, 13 October 1985.*

A Chuck-will's Widow nest in Comanche County, Oklahoma.—The Chuck-will's Widow (*Caprimulgus carolinensis*) is a migrant and summer resident in southwestern Oklahoma that has been seen from 7 April to 28 October (Tyler, J.D., 1979, Birds of southwestern Oklahoma, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 29). Although it breeds westward regularly to Woods, Woodward, Dewey, and Roger Mills counties (Sutton, G.M., 1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 21), nesting in the southwestern part of the state has been confirmed only in Comanche and Caddo counties (Sutton, G.M., 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 270).

On 1 May 1982, I accidentally flushed a female Chuck-will's Widow from a ground nest depression in leaf litter beneath an eastern red cedar (*Juniperus virginianus*) behind a residence at the Wichita Mountains National Wildlife Refuge headquarters area in Comanche County. The two large whitish eggs in the nest were mottled with tan.

On 1 June, the eggs hatched, but at some time between 8 and 11 June, the chicks left or were removed from the original nest-site. I did not see the two young birds again until 15 June, when I found them about 40 feet to the west of the nest-site. By this time they were covered with pinfeathers. They scurried off in different directions when I came near, but soon after my departure, the mother bird flew in and gathered her brood.

The last time I saw all three birds was on 18 June. Never did I see the male bird or observe feeding of the young.

There is but one other nest known for Comanche County, and it too was in the Wichitas. R.D. Bird found a nest-scrape with two eggs at Camp Boulder on 6 June 1929 (Nice, M.M., 1931, The birds of Oklahoma, rev. ed., Publ. Univ. Oklahoma Biol. Surv. 3 (1):107; photo on p. 209).—Frank D. Bryce, *Wichita Mountains Wildlife Refuge, Box 448, Cache, Oklahoma 73527, 20 August 1982.*

Successful late nesting of House Wren in Grady County, Oklahoma.—Ina S. Brown's lead paper in the September 1985 issue of the Bulletin of the Oklahoma Ornithological Society entitled "Successful nesting of the House Wren in western Oklahoma," prompts me to report an earlier case of breeding in Chickasha, Grady County, southwestern Oklahoma.

At the home of J. E. Hood and his wife, in a residential part of town, a pair of House Wrens (*Troglodytes aedon*) nested successfully in the late summer of 1980, raising three young. Successful nesting of the species so far south in Oklahoma is exceptional (Sutton, G. M., 1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 30), the more so since the summer of 1980 was unusually hot and dry. It is my opinion that the total House Wren population of Chickasha that summer consisted of the two adult birds that I saw on 12 and 28 July, one of which I saw also on 6 August, and the pair's just-fledged progeny that the Hoods saw on 5 August.

The Hoods reported that they did not see or hear a House Wren at their place in April or May. From 12 to 19 June, however, I heard a bird singing at

sunrise from a utility wire in the yard. At this time Mr. Hood fastened a nest-box to a clothesline pole eight feet from the ground, hoping to attract the wrens. Not aware of the fact that a singing male usually spends part of this time taking rough nest material to available cavities, one of which will be chosen by the female and lined when she takes him as her mate and lays her eggs, they did not watch him at all closely. Indeed, they did not see or hear a second bird until 12 July, when they and I found that a nest filled the nest-box. The box was in full sunlight, with the entrance facing south. A bowl of fresh water under a hedge and a well-watered vegetable garden close by furnished the wrens with relief from the heat during this month-long period.

On 12 July, I made a point of watching the wrens closely. I feel sure that there were only two of them. At 0940 the male was singing from a telephone wire not far from the nest-box. I saw no sign of a second bird. At about 0942 the male stopped singing and entered the nest-box, remaining there for about 30 seconds. At 0950 a second bird, presumed at the time to be a female, joined the other at his "singing wire," gave a guttural scolding *churr*, and flew to the nest-box even as the singing bird flew off. Not for 22 minutes did I see or hear either of the wrens. At 1014 the male returned to his wire and resumed singing. Almost immediately his mate "showed her face" at the nest-box's entrance. Her behavior seemed to disturb him, for he scolded briefly as she hopped out onto the nest-box's porch and flew off. After she had disappeared, he resumed his singing.

I observed the wrens again on 28 July. The male sang repeatedly from his wire, but his songs seemed muted. At ten-minute intervals the female flew from the nest-box to weeds surrounding a tumble-down shed a few yards away, obtaining there insects for her brood. I photographed her several times at 20 to 25 feet, noting the barring on her wings and tail and the reddish brown of her eye when she was in full sunlight. I could hear the young birds cheeping whenever their mother entered the nest-box with food. On leaving the nest-box she often flew to a favorite perch, a low one, where she fluttered her wings as if trying to cool herself. Not once did I see the male bird go to the nest-box with food.

On 6 August Mrs. Hood telephoned to tell me that she and her husband had observed three young wrens leaving the nest-box the evening before. I called Charles M. Mather, professor of biology at the University of Science and Arts of Oklahoma, and asked him to accompany me to the Hoods' home. When we arrived, Mr. Hood pointed to a cucumber vine growing on a wire fence, the spot at which the young wrens had last been seen. I photographed one of the parent birds as it perched on the fence and flew in and out of the dense cover. Neither of us saw the young birds, but we could hear their conversational *chup-chups* and *tchik-tchiks* in the low vines. We did not see the other parent, nor did we hear any singing. — William H. Hunt, *Rt. 1, Box 147D, Hawley, Texas 79525, 19 November 1982.*

Curve-billed Thrasher eggs eaten by western coachwhip.—At 1545 on 18 June 1983, I discovered the nest of a pair of Curve-billed Thrashers (*Taxostoma curvirostre*) about 30 inches from the ground near the center of a

large cholla cactus (*Opuntia imbricata*) 4½ miles south of Kenton, Cimarron County, far western Oklahoma. It contained a (probable) full complement of three greenish-blue eggs (Bent, A.C., 1948, Life histories of North American birds, U.S. Natl. Mus. Bull. 195, p. 399). When L.E. Dunn and I returned to photograph the eggs at 1625, both parent birds were perched on the cholla, hesitant to leave and acting somewhat perturbed. The nest was empty. Hardly able to believe my senses, I quickly looked on the ground below the nest, reasoning that a Brown-headed Cowbird (*Molothrus ater*) might have thrown the eggs out. There, coiled loosely in the shade of the cactus, lay a western coachwhip (*Masticophis flagellum testaceus*). Dunn and I caught the snake and forced it to regurgitate two of the eggs, each of which contained a well-developed embryo. The female coachwhip measured 64 inches (2226 mm) long.

Masticophis f. flagellum, the eastern coachwhip, ranges through eastern Oklahoma and feeds primarily on small rodents, birds and eggs (Ditmars, R.L., 1939, A field book of North American snakes, Doubleday & Co., Inc., Garden City, N.Y., p. 95). None of several references in The Handbook of snakes of the U.S. and Canada (Wright, A.H., and A.A. Wright, 1957, Comstock Publ. Co., Ithaca, N.Y.) or listed by L.D. Wilson (1973, Cat. Am. Amphib. & Reptiles 145.2, Am. Soc. Ichthyol. & Herpetol.), however, cited specific instances of egg predation by either race of *Masticophis flagellum* that occurs in Oklahoma.

In Cimarron County, *Toxostoma curvirostre* "Nests exclusively in large clumps of arborescent "cholla" cactus . . . one to four feet above ground" (Sutton, G.M., 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 425). For this reason, its eggs and young appear to be particularly susceptible to snake predation, even though the cactus spines are undoubtedly an effective deterrent to most avian and mammalian predators.—Jack D. Tyler, *Department of Biological Sciences, Cameron University, Lawton, Oklahoma 73505, 20 June 1983.*

Nesting of Scarlet Tanager in Woodward County, Oklahoma. — At about 0830 on 6 July 1967 (weather cool and cloudy), just after I had stopped my car to look and listen along a narrow dirt road in a wooded part of Boiling Springs State Park, Woodward County, northwestern Oklahoma, one of the women with me, Bracie Fawcett of Stillwater, Oklahoma, sighted a male Scarlet Tanager (*Piranga olivacea*) only about 20 feet away. She, Lulu Hixon (of Pawnee, Oklahoma), Effie Allembaugh (also of Pawnee), and Doris Baransy (of Mooreland, Oklahoma) promptly got out of the car. To their surprise the tanager, seeming to ignore them, flew to the ground only about ten feet away, disappeared among Virginia creeper leaves, and emerged with a winged insect in its bill. The bird's bright red body plumage and shiny black wings and tail were unmistakable; the red was much more vibrant than that of a male Summer Tanager (*P. rubra*).

Carrying the insect, the tanager flew across the road stright to a nest on a horizontal branch about 20 feet up in an elm. There he probably fed the female, whose head and tail-tip we saw after her mate had flown off. We succeeded in flushing the female by clapping our hands, but we had no way of finding out what was in the nest. Presently both birds returned to the woodland's edge. Since they were obviously much excited by our presence, we marked the nest-tree and departed.

Having learned of the nest from me, Vernon Lowe and his wife Diane (of Buffalo, Oklahoma) visited the nest on 10 July and saw both birds, the female on the nest, the male close by. They did not flush the female. On 16 July, Ivy Brown and his wife Ina (of Elk City, Oklahoma) went with Mrs. Baransy to the nest, finding it deserted and overturned. Mrs. Brown heard the male singing in the distance. The party found him in a tall tree about 200 yards from the nest-tree. They did not see the female bird, which might well have been a Summer Tanager (*Piranga rubra*), for a probable mixed pair nested in Payne County in 1979 (see Kastl, M., 1980, Bull. Oklahoma Orn. Soc. 13:1-4).

Woodward County is considerably west of the counties (Ottawa, Delaware, Mayes, Cherokee, Adair, Sequoyah, LeFlore, Pushmataha, McCurtain) in which *Piranga olivacea* "probably breeds regularly" (Sutton, 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 564), but the western limits of several other "eastern" species — among them the Barred Owl (*Strix varia*), Chuck-will's-widow (*Caprimulgus carolinensis*), Carolina Chickadee (*Parus carolinensis*), and Indigo Bunting (*Passerina cyanea*) — appear to be in Boiling Springs State Park. The above-discussed nesting of the Scarlet Tanager has been reported briefly in Audubon Field Notes (1967, 21: 584) and in Sutton's "Check-list of Oklahoma birds," (1974, p. 41), but details should be on record. — Zella Moorman (deceased), Route 2, Box 55, Perkins, Oklahoma 74059, 15 July 1975.

Black-throated Sparrow in Major County, Oklahoma.—"Oklahoma Route No. 29, Chester" is the official designation of the U.S. Fish and Wildlife Service Breeding Bird Survey Route that threads its way through western Major County. For several years I have run this survey route, but not until 7 June 1982 did I encounter a Black-throated Sparrow (*Amphispiza bilineata*). That day, Margaret Buvinger and I heard one singing and finally saw it a half mile north of the State Highway-15 - U.S. Highway 281 intersection 10½ miles south of Waynoka. Again on 28 June 1984, Jo Ellen Gardner and I found a single bird 1½ miles east of Chester, 14½ miles farther south. Our attention was first attracted by an unusual song which led us to the bird itself, perched on a barbed wire fence. Its distinct white facial stripes and jet-black throat we saw clearly. The type of habitat in which we observed the Black-throated Sparrows on both occasions was rough pastureland containing scattered scrub oaks.

Amphispiza bilineata breeds in the Black Mesa area at the west end of the Oklahoma Panhandle. There are only four previous records for the main body of the state, one each from Canadian, Oklahoma, Cleveland, and Kiowa counties (see Shackford, J.S., 1983, Bull. Oklahoma Orn. Soc. 16:7-8).—Joy H. Robertson, R.R. 4, Box 44, Enid, Oklahoma 73701, 10 April 1986.

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