

County, Texas, Rue Branch watched as a male Red Crossbill drank water at a basin in her yard on 1 April 1991. The following day, a pair arrived. Early on 3 April, at least six came (pers. comm.). At about 0720 on 4 April, two crossbills were in her yard, where Nancy Moorehead also observed them. The two birds reappeared for the last time about 1130 the next day.

3600 QUAIL CREEK ROAD, OKLAHOMA CITY, OKLAHOMA 73120, 15 JULY 1991.

GENERAL NOTES

Unusual feeding behavior of Great Blue Heron. —At 1100 on 27 January 1991, I observed a Great Blue Heron (*Ardea herodias*) perform a fishing technique unfamiliar to me. When first noticed, the heron was flying south 4 to 6 feet above deep water approximately 30 yards off the east shore of Tom Steed Reservoir in Kiowa County, Oklahoma, not far north of the dam. The temperature was about 50°F, the day sunny, and light wind was blowing from the ENE. The bird had not progressed far when suddenly, it abruptly turned and headed back north several yards, apparently to a predetermined point, where it paused briefly in air before reaching down a few inches into the water with its feet, apparently attempting to catch a fish. Having missed its intended prey, the heron turned and flew eastward toward the rocky bank. Before reaching shore however, it circled back out over the lake to a spot a little distance from where it had wet its feet, let its body softly down into the water, and floated momentarily. The object of its attention was a small fish 5 or 6 inches long (and probably dead) which it quickly grasped in its bill, then it lifted off and headed east again. Hardly had it gotten underway, when the fish dropped back into the water. Undaunted, the heron doubled back and repeated its “floating-feeding” behavior. This time, however, it reached the shore, fish in bill.

The various feeding techniques employed by herons have been well described and categorized by ethologists. The general type of behavior I witnessed is known as “deep water feeding,” and several strategies are employed for this. The closest description to my initial observation is known as “foot dragging” (Kushlan, J.A., 1972, *Wilson Bull.* 84:199-200). A heron in flight above the water drags the toes or foot of one or both legs in the water and strikes prey at the surface while continuing in forward flight. This type of feeding is apparently unknown for the Great Blue Heron. The heron I saw did not drag its feet, but “stabbed” with them, much like an Osprey (*Pandion haliaetus*). Furthermore, it hovered briefly before striking, rather than doing so while in unbroken flight. In “feet first diving,” a heron alights on the water, usually from a hovering position, and stabs at prey as soon as it lands (Kushlan, J.A., 1976, *Auk* 93:86-94). This behavior has occasionally been observed in *Ardea herodias*. Another infrequent method is “swimming feeding” (Kushlan, J.A., 1973, *Florida Field Nat.* 1:27-28), in which a swimming bird strikes at prey near it with the bill, usually after a feet first dive. In these cases, the heron ordinarily takes off quickly after feeding. This behavior I saw twice after the heron’s first attempt to catch prey. —Jack D. Tyler, *Department of Biology, Cameron University, Lawton, Oklahoma 73505, 5 February 1991.*

Black-crowned Night-Heron in Wichita County, Texas, in winter.—On 17 December 1989, June McKee and I observed an immature Black-crowned Night-Heron

(*Nycticorax nycticorax*) on the northwest shore of Lake Wichita, in the city of Wichita Falls, Wichita County, north central Texas. The lake was frozen at the time. We identified this bird by its short, grayish legs and the pattern of large white spots on its plumage, particularly the back.

On 1 January 1991, Terry McKee and I searched again for birds at Lake Wichita. Skies were mostly cloudy and the temperature ranged from 20° to 59°F. The lake was mostly frozen, but there were a few small open patches of water offshore. While scanning the northern end of the lake, near the shelter in Jaycee Park, we discovered an adult Black-crowned Night-Heron standing amid a thin stand of bulrushes (*Scirpus* sp.). The heron stalked slowly across the ice for several steps, stopped, then stared intently at the ice. It stood there, motionless, for several moments before repeating its stalk. We watched the bird for approximately 20 minutes, during which time it neither flew, struck at prey, nor moved from the reeds. It was seen in the same area later that day by Earl Anderson, also of Wichita Falls.

Eleven months later, on 5 December 1991, Anderson saw an adult Black-crowned Night-Heron at a pond near the Wichita River. This was within the city limits of Wichita Falls (Pers. comm.).

According to *The birds of north central Texas*, a checklist prepared by K.S. Zinn and N. Moore (2nd ed., 1976, North Texas Bird & Wildl. Club, Wichita Falls, Texas), the Black-crowned Night-Heron is "accidental" in the Wichita Falls area, with only five "isolated" records, four in spring (three in March), and one during fall.

The only sightings in December or early January known in the north Texas region were made during Christmas Bird Counts at Abilene, Texas, 120 miles southwest of Wichita Falls. Here observers counted 10 birds on 2 January 1982 (*Am. Birds* 36:656, 1982); five on 29 December 1984 (*Am. Birds* 39:692, 1985); and three during the 2 January 1988 count (*Am. Birds* 42:970, 1988). The several winter records for Oklahoma were all from the Salt Plains National Wildlife Refuge in Alfalfa County, northwestern Oklahoma, except one for Payne County in the north central section (Sutton, G.M., 1967, *Oklahoma birds*, Univ. Oklahoma Press, Norman, p. 36). —Debra McKee, 1200 Sunnyside Lane, Wichita Falls, Texas 76303, 2 April 1991.

Green leaf collecting by nesting Purple Martins.—The Purple Martin (*Progne subis*) is a transient and summer resident in Oklahoma, more common in eastern sections than western (Sutton, G.M., 1967, *Oklahoma birds*, Univ. Oklahoma Press, Norman). An unusual facet of its behavior is that the parents daily bring green leaves to the nest, but the reasons for this are not clear.

During the summer of 1989, I studied this behavior in a small population of martins on the grounds of the University of Oklahoma Biological Station near Willis in Marshall County, south central Oklahoma. Every day from 14 June through 21 June (with the exception of 20 June), I removed, sorted and counted fresh leaves at five experimental nests. Five other nests, with egg laying dates that corresponded closely with the experimental ones, were used as controls in an effort to determine whether or not leaf removal affected the martins, and if so, how.

In only four of the original 10 nests were chicks hatched. Fortunately, one was a control nest. The following data are given for these nests only.

The three houses used in the study were lettered A through C. Each contained nest compartments numbered 1 through 12. The martins in one nest (A-10), in which the last

egg was laid on 26 May and eggs hatched on 13 June, subsequently brought a total of 58 leaves to the nest. They stopped abruptly six days later, on 19 June. A control nest (B-11) with the same laying date as A-10 hatched eggs a day later and still contained fresh leaves on the nineteenth. However, because no leaves were being removed from control nests, the actual date that the birds ceased to bring leaves to them could not be determined.

At Nest B-6, with a full clutch on 28 May, 136 leaves were deposited during the four days after the eggs had hatched on 16 June. The procedure was then discontinued. Nest C-10, in which the final egg was deposited on 14 May, received a total of 51 leaves before the martins stopped bringing them on 19 June, the sixth day after hatching.

The types of leaves removed from the nests and the total numbers of each were: chittamwood (*Bumelia lanuginosa*), 179; black willow (*Salix nigra*), 38; winged elm (*Ulmus alata*), 20; and cottonwood (*Populus deltoides*), 8. With few exceptions, they measured three to five cm long. Leaves larger than this had been torn to the smaller size.

From the time nest construction began until four to six days after the eggs had hatched, Purple Martins in this study placed green leaves in their nests. Until four to six days after hatching, the nestlings were essentially featherless. Johnston and Hardy (1962, *Wilson Bull.* 74:243-261) proposed that the greenery functions as a natural repellent to nest ectoparasites such as feather mites, but close examination of the leaves I removed from nests revealed that live mites remained thereon for several days. This would tend to indicate that the species of leaves chosen by the martins during this study had little or no repellent effect.

Another idea is that new leaves enhance nest insulation. This seems to have been true of Wood Stork (*Mycteria americana*) nests, even after the leaves had dried (Rodgers, J.A., et al., 1988, *Wilson Bull.* 100:411-423). Some ornithologists speculate that fresh leaves provide increased moisture around the eggs. However, I had no way to determine the validity of either of these latter hypotheses. Further study is needed to resolve this problem. — Sheila Strawn, 9624 N.E. 4th St., Midwest City, Oklahoma 73130, 23 January 1990.

Kentucky Warbler nest in Oklahoma County, Oklahoma.— On 16 June 1984, in northeast Oklahoma City, Oklahoma County, central Oklahoma, I found a Kentucky Warbler's (*Oporornis formosus*) nest which contained four eggs.

While walking with my son Nicholas at about 1030 along a small creek, we came upon a Kentucky Warbler which immediately began scolding us. For about 10 minutes we quietly observed the bird from a short distance, but it did not go to a nest. Bordering the creek was an open woodland of blackjack and post oaks, subtended by broad-leaved undergrowth less than three feet high. Several breeding seasons before, I had seen a Kentucky Warbler in the same area, but that bird had given no clear indication of nesting.

Returning to this spot about noon, I thought I heard a warbler sing briefly before it flew away. I sat down and waited. Soon, a bird that I suspected was the female of the pair appeared and scolded me. Twenty feet away, it began gradually working back and forth down into a small stand of dense viny undergrowth about six feet wide and somewhat longer. It finally disappeared after about 20 minutes. Now that it was well concealed, I anticipated that it would return to its nest. After ten minutes the bird still

had not reappeared. I decided to rush toward the spot, stopping just short of it. Immediately, a Kentucky Warbler flew from the precise spot where I had suspected a nest. The nest was situated near the base of a small, leafless sapling enclosed by Virginia creeper, greenbriar, and other broad-leaved plants. Its four whitish eggs were smaller than a cowbird's (*Molothrus ater*) and speckled with brown. Fine grasses made up the bulk of the nest and it was lined with horse hair. Resting slightly aboveground, it was surprisingly large, the sides being four or five inches high. Ten feet to the south was a horse trail about a foot wide. An equal distance northward, the creek bank dropped precipitously to its bed more than 20 feet below.

Eighteen days later (4 July) I returned to find the nest empty, but it contained a moderate amount of "whitewash." Bent (1953, Life histories of North American wood warblers, Pt. 2, Bull. U.S. Natl. Mus. No. 203, pp. 506-507) reported the time that young are in the nest before fledging at from 8 1/2 to 10 days. Thus, providing the eggs were nearing completion of incubation at discovery, one or more young may have fledged during the 18 subsequent days. I neither saw nor heard Kentucky Warblers in the area, but I did not make an exhaustive search.

Although there are no previous breeding records for Oklahoma County, Kentucky Warblers have nested as far west as Payne (1937, 1959), Cleveland (1955, 1971, 1972) and Caddo (1867, 1979) counties in central Oklahoma (Sutton, G.M., [1982], Species summaries of bird records, Oklahoma Mus. Nat. Hist., Univ. Oklahoma, Norman; U.S. Natl. Mus. records).

According to Herbert Friedmann, "The Kentucky Warbler is a locally common victim of the brown-headed cowbird" (1963, Host relations of the parasitic cowbirds, Bull. U.S. Natl. Mus. No. 233, p. 115). Scarcity of local sightings in recent years may indicate that Kentucky Warbler numbers are declining because of this parasite, as is true of populations of several other small birds in central Oklahoma. — John S. Shackford, 6008-A Northwest Expressway, Oklahoma City, Oklahoma 73132, 30 July 1984.

Cassin's Sparrow in Greer County, Oklahoma, in October. — On 31 October 1991, at approximately 1000, I was observing birds at a feeding station behind the Nature Center at Quartz Mountain State Park in Greer County, southwestern Oklahoma. The weather was cold for late October with an air temperature of approximately 34° F, overcast sky and a light north wind. I chanced to notice a medium-sized sparrow in a post oak tree overhead. It seemed attentive to the activities of several other birds feeding on the ground (primarily juncos and sparrows), and remained perched for several minutes. At no time did I see it partake of the plentiful bounty at the feeders: sunflower seeds, thistle seeds, and suet.

This sparrow's breast was tan and unstreaked. There were no obvious markings on its chin, except for two fine black "whisker" marks. What drew my attention were the very narrow brown streaks on the bird's crown that appeared to be more "dashed" than solid. Its back was brownish-gray, overlain with browner streaks. The mostly gray tail feathers were tipped with a tiny bit of white. These field marks identified the bird as a Cassin's Sparrow (*Aimophila cassinii*), a species I occasionally see during summer in the park or along a Breeding Bird Survey that I conduct not far to the north, in Beckham County.

Cassin's Sparrow is considered to be an uncommon migrant and summer resident

in this part of the state that has been recorded from 27 April to 12 July (Tyler, J.D., 1979, *Birds of southwestern Oklahoma*, Contrib. Stovall Mus. Sci. & Hist. No. 2, Univ. Oklahoma, Norman, p. 52). However, there are very few fall records from anywhere in Oklahoma, and none for winter (Sutton, G.M., 1967, *Oklahoma birds*, Univ. Oklahoma Press, Norman, p. 616).

The feeding station is located next to a 15-acre stand of woodlands consisting of post oak, soapberry, and live oak trees. On two sides of this tract are blacktop roads. This would seem unlikely habitat for Cassin's Sparrows. Sutton (*loc. cit.*) described typical habitat as "open prairie, especially lightly grazed sandy land with scattered sage, yucca, prickly-pear, mesquite, and small stands of shinnery oak . . ."

The station has been active for six years and it attracts a host of birds throughout fall and winter. Perhaps this late migrant was drawn by the feeding activity of the other birds. — Victoria Mason, *Naturalist, Quartz Mountain State Park, Rt. 1, Box 40, Lone Wolf, Oklahoma 73655, 21 November 1991.*

First House Finch nests for southwestern Oklahoma. — On 30 May 1991, I discovered a House Finch (*Carpodacus mexicanus*) nest on the Cameron University campus in Lawton, Comanche County, southwestern Oklahoma. It was 9'8" up in a 12-foot pine near the library. Beginning 2 April, I had heard a male singing nearby. On 25 April I first saw a female and two males together. On 30 and 31 May, I watched a pair gather blades of grass and carry them to the little pine. The male sang intermittently on those dates. Where the second male went I do not know, but I subsequently failed to see it. On the 31st, the female flew directly to the top of the pine, where I finally pinpointed the well-concealed nest; it appeared to be nearly complete. During the first two weeks of June, I frequently checked the nest and found the female there on the 4th and 6th. On the 4th, she repeatedly uttered "chik-up" from the nest. On the 10th, there were two eggs in the nest, but I had seen no adults there since 6 June. Finally, on 13 June, I decided that the birds had abandoned it. The cause was probably attributable to the sudden and continuous presence of human activity once summer classes began on 3 June. The nest was only eight feet from two busy sidewalks that intersected in the middle of the campus.

A week later, at 0830 on 20 June, I happened to notice a House Finch feeding in the lawn about 300 yards southwest of the abandoned nest. After a few moments, it flew about 100 yards to the southwest, into the top of another small pine near the tennis courts. I followed, and near the top of this tree was a second nest, 13 feet up. It appeared to be only about one-third finished. However, a female finch was on it. Next day at 0830, the female flew off the nest as I checked its contents with a pole-mounted mirror. The male flew in and landed near the nest, gave two soft "chips," and flew to another pine 10 feet to the south. The nest was now lined and (I thought) empty. But on the 24th, there were at least three tiny hatchlings therein, not more than two days old!

At 1145 on 2 July, the female flushed from the nest as I checked it. As I positioned the mirror above the nest, a stub-tailed young finch flew weakly out and landed on the tall chainlink fence a few feet away. I lifted the mirror to the nest once more; another chick scrambled out, and flew about 20 yards south, landing awkwardly on a small shelter roof. This procedure I repeated once more, with similar results. This time the young bird flew over the fence onto the tennis court. When I could finally see down into

the nest, a single chick remained. Reilly (1968, *The Audubon illustrated handbook of American birds*, McGraw-Hill Co., N.Y., p. 465) gave 11 to 19 days as the age at first flight for this species. Therefore, I judged that these young finches were approximately 10 to 12 days old. As I attempted to catch the prematurely displaced chicks, one unfortunately flew into a maintenance building not far off. It was prepared as a specimen (CUMZ 1077). The other two flew too strongly for me to capture and replace in the nest.

Whether or not this was the same pair that had abandoned the earlier nest is conjectural, since I had previously seen two males on campus. In any event, the above represent the first nests for southwestern Oklahoma and an eastward extension of breeding range of approximately 60 miles. Exclusive of the Panhandle, they are the seventh and eighth nests known for the state, but only the third and fourth outside Beckham County (see Oliphant, M., and I.S. Brown, 1984, *Bull. Oklahoma Ornithol. Soc.* 17:9-12; and Beavers, L., and E. Beavers, 1989, *Bull. Oklahoma Ornithol. Soc.* 22:30-31 for earlier records). — Jack D. Tyler, *Department of Biology, Cameron University, Lawton, Oklahoma 73505, 29 October 1991.*

FROM THE EDITOR. — A few errors in the December 1991 OOS *Bulletin* need to be corrected. On page 26, in the third sentence of the second paragraph, delete the comma following "sides" and change "(*S. Pacifica*)" to "(*G. pacifica*).". In the second paragraph on page 28, the last half of the first sentence should read: ". . . causing it, while beating a hasty retreat, to drop a fish."

The 82-page January-February 1992 issue of the Department of Wildlife Conservation's magazine, *Outdoor Oklahoma*, is dedicated exclusively to birds. They are categorized as "ground birds," "waterfowl," "water birds," "birds of prey," "tree-climbing birds," and "perching birds," and are discussed and described in running text that accompanies the numerous excellent photographs. Species-specific information pertaining to behavior, migration, range, song, management, reproduction and identification is presented in the first part of the publication. Remaining sections deal with observing, feeding and photographing birds, together with instructions for constructing nestboxes and improving habitat. A copy may be obtained by sending \$5.00 to the Oklahoma Department of Wildlife Conservation, 1801 N. Lincoln, Oklahoma City, Oklahoma 73152, or by picking one up at Department headquarters for \$4.00.

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