

A TURKEY VULTURE ROOST ON A SANDBAR

BY GARY W. SALLEE

During the latter half of July 1975 I repeatedly observed Turkey Vultures (*Cathartes aura*) roosting on a sandbar close to the low-lying, densely wooded Pawnee County side of the Arkansas River not far from the town of Blackburn, northeastern Oklahoma. On 17 July, when I first observed the roost, the river was low and the bar was an island about an acre in extent and perhaps a foot above water-level at its highest point. It was quite devoid of vegetation. Opposite from it the river's bank was high and clifflike.

Toward evening on 17 July, about 115 vultures gathered on the bar. Using my 7 x 50 binocular, I noted the red heads of the adults and the gray, down-



TURKEY VULTURES AT THEIR ROOST ON A SANDBAR

Photographed on 22 July 1975 along the Arkansas River near Blackburn, Oklahoma by Gary W. Sallee.

covered heads of the young birds. There were no Black Vultures (*Coragyps atratus*) in the lot: every bird had the comparatively long wings, long tail, and short legs of the Turkey Vulture. I continued my watch until dark. Not a bird left the bar as I watched, though from time to time new birds arrived.

When I returned on the afternoon of 19 July, the river had dropped a foot or so, exposing so much of the bar that it had become a peninsula jutting out from the bank. At 1625, four vultures were standing in a shaded part of the peninsular bar. An approaching storm obliged me to leave before dark.

On the evening of 22 July, vultures continued to alight on the bar for some time. At 1900 I counted 91 of them as well as nine Great Blue Herons (*Ardea herodias*) and 15 Mourning Doves (*Zenaidura macroura*) there. Using a telephoto lens, I photographed the vultures. I remained until dark. No vultures left the bar while I was there.

Much rain fell between 25 and 27 July, causing the swollen river to inundate the sandbar. By the time of my visit on 29 July, however, the water-level had dropped and the bar had once more become an island. On that date more than half of the bar was covered with a thin layer of mud, and I noted with interest that the 42 vultures counted at 2010 were all standing on the part that was without mud. At 2030 one bird left the bar, flying off toward the west. Soon it was followed by another bird, then a third. I was not at all close to the bar, so could hardly have frightened the vultures off, though my arrival might have triggered their departure. After waiting about ten minutes, I followed the three departing vultures, leaving 39 of them on the sandbar. When I reached the place at which the three had disappeared among the trees, I came upon about 50 vultures perched in two large cottonwoods (*Populus deltoides*) along the fringe of a Great Blue heronry that I had not known about. In each cottonwood were — in addition to the vultures — four unoccupied heron nests. I stayed near this tree-roost until dark. No more vultures came to it while I was there, so a considerable number of vultures may have spent the night on the bar.

During three of my four visits to the sandbar roost, I noted that more and more vultures arrived as daylight waned. So far as I know, no birds flew in after dark. After arriving, the birds spent much of their time preening. Often they walked to the edge of the bar and drank. Although I witnessed little of what I would call social behavior, it occurs to me that sandbars may be important in the Turkey Vulture's ecology not only for roosting, but also for temperature regulation through drinking and bathing, and also as a means of acquainting unpaired birds with each other. Further observations will determine at what season such roosts become established. If they start early enough in spring, courtship activity should be observable at them.

So far as I know, the roosting of *Cathartes aura* on a sandbar has not heretofore been reported. Brown and Amadon (1968, Eagles, hawks and fal-

cons of the world, 1: 176) mention a single bird that was "observed to come to a river to drink at the same time each afternoon" and "groups" that "may assemble at sandbars," but in their considerable discussion of roosts they say nothing about roosts on the ground. George M. Sutton informs me that he has observed "many Turkey Vulture roosts, . . . most of them in trees, some in cliff country, none on a sandbar" (letter of 14 August 1975).

ROUTE 2, BOX 164A, YALE, OKLAHOMA 74085, 1 SEPTEMBER 1975

A LATE NESTING OF THE CARDINAL

BY MYRTLE KELLEY

Oklahoma bird students continue to believe that the Cardinal (*Cardinalis cardinalis*) sometimes rears three broods a season in this part of its range. Proof of three-broodedness will require marking individual birds, of course, not to mention careful observation. The species certainly starts nesting early and continues late in Oklahoma. Sutton (1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 572) mentions a "partly built nest" observed in Cleveland County on 27 March 1964, and "young out of nest receiving food" in Tulsa County on 26 September 1948 and 26 September 1952.

At my home in a "wild" part of southern Tulsa County (on 101st Street between Mingo and Memorial avenues, within corporate Tulsa), on 27 August 1973, I observed a female Cardinal inspecting, then remodeling, a nest that Cardinals had used more than a year before (spring of 1972). The nest was 4 feet up in a holly bush almost under the awning for a bedroom window. From this window, which was only about 3 feet from the nest, my sister Frances and I made observations daily from 27 August to 24 September.

As far as we know, the female started her remodeling at about 0730 on 27 August. The nest had a flattened, shoddy appearance at first, but presently the fresh lining gave it a cuplike appearance. We did not see the male bird anywhere near the nest that day. The following day (28 August) the female again started work about 0730 and she stopped at about 1030. During this period the male looked on and sang from time to time, though he carried no material and did no work on the nest. On 29 August the female started work at about 0730 and stopped about 1030. The remodeling was completed that day.

The first egg was laid on 30 August, the second on 31 August, the third between 0720 and 0800 on 1 September. At 0800 on 1 September the female left the nest. She returned for a brief visit at 0845 but was away from the nest the rest of the day. She did not spend that night on the nest. On 2 September she came to the nest at 0655 and was on it all day except for three or four feeding periods. We did not observe her continuously, of course, nor did we keep a record of her off-the-nest periods.

During the incubation period, which continued through part of 15 September, the female spent the night on the nest and she was on the eggs throughout the day, too, except for what seemed to us to be brief feeding

periods. As a rule her first feeding period after a full night on the nest began at about 0700. On 6 September, during an all-day rain, she brooded the eggs almost continuously. On the morning of 8 September she was obviously sleepy; after yawning, she left the eggs at 0650, to be gone half an hour. On the morning of 12 September, at two separate times before 0800, we saw her turn her eggs with her bill. That day we did not see her leave the nest. On 13 September she left the nest as usual, to feed, but was quiet about it. We heard no chirping from her as she came and went.

We did not see much of the male bird during the incubation period. On 4, 5, and 8 September, however, we saw him in shrubbery not far from the nest, and we often heard him singing. Not once did we see him feed his mate at the nest.

Hatching of the three chicks may or may not have required two full days. We know that at least one egg started to hatch on 14 September; that on the morning of the 15th one chick, one partly hatched egg, and one apparently unpipped egg were in the nest; and that by evening on the 15th there were three dry chicks. We did not see the mother bird carrying off eggshells.

On the morning of the 15th we watched the female as she left the nest to find food. At first only two chicks seemed to be lifting their heads and opening their mouths. The mother fed them slowly and carefully, squeezing juice from caterpillars (and possibly other insects) into their mouths. The air was cool, so she brooded them after each feeding. Later in the day we perceived that all three chicks begged for food. We did not see the male bird at or near the nest that day.

On the 16th, the female continued to feed the chicks. The feeding process seemed to be principally a squeezing of liquid from insects of various sizes, but we saw her give "bite-size" parts of caterpillars, too, from time to time. If food was not promptly swallowed by a chick, she lifted it out carefully and offered it again, at times to another chick. At 1950 she made her last food-trip to the nest for the day, at that time feeding what appeared to be the smallest of the chicks. Again we did not see the male bird at the nest.

The 17th was cold and rainy, with north wind. The female brooded her chicks much of the time. She left on her first food-finding trip at 0830. The male did not, so far as we know, come at all close to the nest that day.

On 18 September the male visited the nest at least once, but brought no food. So far as we could tell, only the female fed the chicks that day. From the 19th on, however, the male brought food and carried off fecal sacs regularly. On the 20th he came with food about as often as the female did. His plumage was somewhat ragged.

On 22 September another cold front brought wind and rain. The female covered her brood while the storm lasted. At 0930 the rain stopped and the female left the nest to find food. One of the chicks had become wet, but it soon

dried off. All three chicks were now preening their plumage vigorously. When they lifted their crown feathers we could see that they had little crests.

On the 23rd, the chicks stood up while being fed. Food brought to them now included fair-sized grasshoppers, which they swallowed whole. The brood so filled the nest that one of them sometimes perched on the rim. That night the mother bird did not stay at the nest — it was simply too full for her. One of the brood slept on the rim.

On the 24th, all three chicks left the nest. Departure started about 0930. By noon two chicks had moved well off — first to the farther part of the holly bush, then to trees beyond the yard. They flew fairly well. So far as we could tell, the male parent was not with them. The last to leave — presumably the youngest — flew weakly from the holly bush when my sister stuck her head out the window. Unable to go far, it "landed" on the ground near a fence about 30 feet away. The mother seemed to want it to go to the trees in which its two siblings were, but when it finally did fly, it returned to the holly bush. It spent the night there.

During the following three weeks (until 18 October) we often saw two young birds with an adult female, but never with a male, so we assumed that "our" male was caring for the third chick well away from the house or that he and the third chick had been killed. On the evening of 23 October we saw three dark-billed young birds and an adult female heading for a blackjack oak about 30 feet from the holly nest-bush. We believed that the foursome roosted there, but we had no way of knowing for sure that they were "our" birds.

Throughout the observation period discussed above a second pair of Cardinals lived in the vicinity of our house. We occasionally saw or heard these two birds, but were not sure that they had a nest. On 8 October we saw a male Cardinal feeding an almost full-tailed chick that appeared to be considerably more mature than the brood we had been watching.

In any event, we were happy to realize that "our" birds had been successful in fledging a late brood. We could not help wondering whether the female that we had watched had reared one or two other broods earlier in the season.

ROUTE 1, BOX 971, BROKEN ARROW, OKLAHOMA 74012, 25 OCTOBER 1973

GENERAL NOTES

Late nesting of Pied-billed Grebe in Oklahoma.—On 10 August 1975, while banding nestling Great-tailed Grackles (*Quiscalus mexicanus*) at Rose Lake, Canadian County, central Oklahoma, I was startled by a loud splash nearby, followed by the loud alarm notes of a Pied-billed Grebe (*Podilymbus podiceps*). Upon close investigation, I discovered a grebe nest containing four warm eggs. The nest was a floating platform of cattail leaves about 10 feet in from the edge of an extensive dense stand of cattails in water 3 feet deep. Evidently I had surprised the incubating adult, for it had not taken the time to cover its eggs with vegetation before departing.

On 17 August I returned to the nest, finding it completely covered with warm, damp

vegetation. Upon uncovering it, I found that there were now five eggs. While at the nest, I repeatedly heard grebe alarm notes in the surrounding cattails.

On 23 August I again visited the nest. The five eggs, though uncovered, were warm; none was pipped. Among the several Pied-billed Grebes that I noted in the area that day were adults still in breeding plumage and fully grown immature birds.

John S. Shackford visited the nest on 31 August, finding only two eggs there, one warm, the other cold. Listening closely, he could hear peeping inside the cold egg.

Bent (1919, Life histories of North American diving birds, U.S. Natl. Mus. Bull. 107: 41-42) describes the Pied-billed Grebe as one-brooded, as having an incubation period of 23-24 days, and as laying one egg per day contiguously until a full clutch of 3-10 eggs is complete. Thus, if the fifth egg of the clutch at Rose Lake was laid on 11 August, the hatching of that egg could be expected on or about 3 September.

According to data on *Podilymbus podiceps* filed at the University of Oklahoma Bird Range, the latest Oklahoma date heretofore reported for eggs in the nest is 16 July: on 16 July 1968, a nest containing seven eggs was found on a fishery pond 5 miles south of Sulphur, Murray County, south-central Oklahoma by George M. Sutton, George A. Newman, et al.—Warren D. Harden, 2409 Butler Drive, Norman, Oklahoma 73069, 30 October 1976.

First Oklahoma breeding record for Hooded Merganser.—In late afternoon on 8 May 1977, while searching for rails among cattails along the shore of Robert S. Kerr Reservoir on the Sequoyah National Wildlife Refuge in Sequoyah County, east-central Oklahoma, Jerry Sisler, M.D., John S. Tomer, and I observed at close range a hen Hooded Merganser (*Lophodytes cucullatus*) and her brood of eight very small, dark young ones. The spot at which we saw them was about 2½ miles south of the town of Vian.

Tomer and I, standing on a foot-bridge that crossed a narrow arm of the reservoir, were hoping to see any rail, bittern, or other secretive bird that Sisler might flush as he waded through the dense stand of cattails that lined the shore. As Sisler approached the foot-bridge, the hen merganser, with seven little ones in tow, emerged from the cattails not more than 30 feet from us. When mother and seven were about 10 feet from the cattails, an eighth chick appeared, paddled frantically catching up with the entourage, where it took its position as "caboose," and away went the "train" single file, the brood in a straight line behind the old bird exactly as if on a string. All three of us watched for possibly five minutes as the hen led her chicks — rather triumphantly, I thought — out of sight around a bend in the shoreline.

The area is wild. Robert H. Stratton Jr., Refuge Manager, tells me that Wood Ducks (*Aix sponsa*) have nested thereabouts in some numbers. In the summer of 1972, Anhingas (*Anhinga anhinga*) nested in trees standing in water about half a mile south of the foot-bridge (Norton, 1973, Bull. Oklahoma Orn. Soc., 6: 12-13). These same trees, now dead, have many cavities in which Wood Ducks, Hooded Mergansers, and Barred Owls (*Strix varia*) may nest.

The Hooded Merganser has not heretofore been known to breed in Oklahoma, though according to records on file at the University of Oklahoma Bird Range a hen was seen in Mohawk Park in Tulsa, Tulsa County, northeastern Oklahoma on 15 May 1953 (Anne Reynolds); a single bird was seen 7 miles northeast of Guymon, Texas County, in the Panhandle, on 24 May 1941 (Howell, 1950, Proc. Oklahoma Acad. Sci., 29: 35); and a drake was seen on City Lake in Altus, Jackson County, southwestern Oklahoma on 30 May 1968 (W. M. Davis). The species is said to be an "uncommon breeder" in Louisiana (Lowery, 1955, Louisiana birds, Louisiana State Univ. Press, Baton Rouge, p. 182); its "nesting in Arkansas County," eastern Arkansas, has been reported (Baerg, 1951, Birds of Arkansas, Agric. Exper. Sta., Univ. Arkansas, Fayetteville, p. 44); and sighting of a

female bird near Ellis, central Kansas, on 27 June 1884 (Goss, 1885, Auk, 2: 112) and two specimens taken in eastern Kansas "in June" support the belief of Tordoff (1956, Check-list of the birds of Kansas, Univ. Kansas, Lawrence, p. 317) that the Hooded Merganser "probably nests occasionally" in Kansas. According to Sutton (1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 84), *Lophodytes cucullatus* is "to be looked for in summer in wooded parts of eastern Oklahoma." — James L. Norman, 502 N. 14th St., Muskogee, Oklahoma 74401, 23 June 1977.

American Coot breeding in Jackson County, Oklahoma.—On 22 July 1973 William S. Bartush and I saw a chick American Coot (*Fulica americana*), with the distinctive red-orange head, swimming on a pond 7 miles east and 3 miles south of Eldorado, Jackson County, southwestern Oklahoma. To the north and west of the pond was a stand of mesquite trees (*Prosopis juliflora*) about 15 feet tall, to the south a large area of uprooted mesquite, and to the east a wheat field. The water surface of the pond covered slightly more than an acre. About 55 feet out from the south shore was a dense circular growth of cattails (*Typha* sp.) about 50 feet in diameter, but the shore itself was barren of vegetation.

The young coot, slightly larger than a Bobwhite (*Colinus virginianus*), was swimming alone on open water. Presently an adult coot emerged from the cattails and joined the chick and together they swam back into the rank vegetation. We did not see the nest, which was probably hidden among the cattails.

Victor J. Heller informs me that during the summer of 1972 (exact date unrecorded) he saw two adult coots and two young birds among the cattails at this same pond.

Jackson County is listed by Sutton (1974, A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 13) among the counties in which *Fulica americana* has been found nesting in Oklahoma, but pertinent details have not, so far as I know, been published. The date of the sighting reported above falls within the period stated by Carter (1969, Bull. Oklahoma Orn. Soc., 2: 13-14) to be that in which nesting of the American Coot takes place in Oklahoma.—John W. Ault III, 4213 Bedford Dr., Lawton, Oklahoma 73501, 22 May 1977.

Poor-will in Woods County, Oklahoma.—Soon after dark on the evening of 1 October 1976, about 6 miles northwest of Alva, Woods County, northwestern Oklahoma, I happened upon five or six Poor-wills (*Phalaenoptilus nuttallii*) along a half-mile stretch of winding gravel road that follows a ridge between the Salt Fork [of the Arkansas] River and an arroyo known locally as Big Boggy Creek. At several places along this stretch the land slopes steeply northward toward the river bottom, but gradually southward toward the arroyo. Big Boggy flows only after rains, but the river almost always has some water.

The Poor-wills were widely scattered, but I sometimes saw two at a time. The glowing eyes and darting flight led me to suspect that they were caprimulgids, but they seemed too small for Chuck-will's-widows (*Caprimulgus carolinensis*), a species I had seen and heard many times in summer along this road.

After my car had put the puzzling birds to flight several times, I stopped to observe one of them. To my surprise, it did not fly until the car had approached to within a few yards. When I drove slowly toward another, it did not fly even when it was so close that I could not see it because of the car's hood. When I stopped the car, got out, and moved around to get a clearer look, it remained on the ground. Its smallness and gray-brown appearance convinced me that it was not a Chuck-will's-widow.

The following evening (2 October) I found three or four of the birds along the same stretch of road. Each allowed me to approach to within a few yards before it flew. I could not see the white throats of birds on the ground nor could I see the white (or buff) of the

tail as they flew. I did not have a binocular. Later that evening I collected one and knew at once that it was a Poor-will. From the white of the throat and tail-corners I judged it to be a male — a judgment confirmed by George M. Sutton, who weighed it (41.7 grams) and prepared the skin (UOMZ 11374; little fat; testes very small; stomach packed with remains of insects, chiefly moths; skull fully pneumatized).

From 3 to 14 October I had no occasion to drive along the road at night. On the night of the 15th I made a point of looking carefully for the birds, but found none. The weather turned cold on the 16th. On the night of the 18th I saw two Poor-wills. I could not help wondering whether the little population had settled down for the winter. Finding a hibernating Poor-will in some cranny along the Big Boggy would indeed be a discovery!

On the following 30 April (1977), along the same road but this time 7½ miles northwest of Alva, I found a Poor-will dead, a male bird that probably had been struck by a car the preceding night.

Phalaenoptilus nuttallii has heretofore been reported from Woods County by two early observers, neither of whom mentioned actually seeing the bird. During his residence at Alva from 1904 to 1914 Prof. George W. Stevens "frequently heard [the species] from the bluffs south of the Cimarron" and from 30 June to 9 July 1930 R. D. Bird heard it "several times near Waynoka" (Nice, 1931, *Birds of Oklahoma*, p. 108).—Paul F. Nighswonger, *Dept. of Biology, Northwestern Oklahoma State University, Alva, Oklahoma 73717, 10 May 1977.*

Curve-billed Thrasher in Comanche County, Oklahoma.—At about 1030 on 22 October 1976 I observed a Curve-billed Thrasher (*Toxostoma curvirostre*) among the main corrals near the headquarters area of the Wichita Mountains Wildlife Refuge in Comanche County, southwestern Oklahoma. I carefully noted the bird's brownish gray upperparts, long tail, and strikingly yellow eye. I was familiar with the species, since I had only recently moved to Oklahoma from the Santa Ana National Wildlife Refuge in extreme southern Texas, where the Curve-billed Thrasher is common. Later that same day, Eugene A. Bartnicki photographed the bird, but at great distance (slide on file at Cameron University). During November it was observed repeatedly by me and others in the vicinity of the corrals. At 1600 on 1 December Jack D. Tyler, Brad Carlton, and I saw it. At 1500 on 17 December I had a good look at it. On 18 December, during a Christmas Count, several persons, including Louis E. McGee, his wife Janet, and myself, saw it. On 29 December I saw it clearly. On 31 December a storm blanketed the area with 6 inches of snow and the air temperature dropped to 10°F. Attempts to find the bird that day were unsuccessful. It has not been seen since then.

While we were watching the Curve-bill, it spent most of its time on the ground, picking about piles of horse manure. Florence M. Bailey, who observed the species extensively in southern Arizona, reported that on 3 February she watched one "walking in the mesquite pasture, flipping up cow-chips as he went, evidently looking for insects or other toothsome morsels below—a scorpion had been found under one of them" (*in Bent, 1948, U.S. Natl. Mus. Bull. 195: 394*).

Toxostoma curvirostre is known to be resident in the Black Mesa country at the western tip of the Oklahoma Panhandle; it has been reported also from Ellis, Beckham, Jackson, Kiowa, and Oklahoma counties in the main body of the state (Sutton, 1974, *A check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 31*), but it has not heretofore been reported from Comanche County.—O. T. Fears III, *Box 448, Cache, Oklahoma 73527, 8 February 1977.*

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