

SUCCESSFUL NESTING OF THE BANK SWALLOW
IN OKLAHOMA

BY PAUL W. WILSON

For the past five years, while teaching biological science at the public school in Picher, Ottawa County, northeastern Oklahoma, I have known that Bank Swallows (*Riparia riparia*) and Rough-winged Swallows (*Stelgidopteryx ruficollis*) were summering in the area, but not until the spring of 1980 did I focus my attention upon the two species. Both had, I knew, been nesting in town, not in earthen banks along streams but rather in what were known locally as "chat piles" — massive, heavily eroded heaps of coarse gravel mine tailings dating back to 1915, when mining for lead and zinc was an important



BANK SWALLOW CHAT PILE IN PICHER,
NORTHEASTERN OKLAHOMA

Photographed by Paul W. Wilson on 31 March 1980, about the time the swallows returned from the south. The chat pile is 60 feet high. The picture shows only a few of the 138 burrow-entrances that Wilson counted at this chat pile on 31 March.

industry at Picher. Two chat piles about 500 yards apart, each with vertical, clifflike face, seemed to meet the birds' nesting needs especially well. The cliff at one pile was about 40 feet high, at the other about 15 feet high. Here the many Bank Swallows had nested in dense colonies, the much less common Roughwings in scattered pairs. Entrances to Bank Swallow burrows had often been only a foot or so apart, but no two Roughwing burrows had been at all close to each other.

Since successful nesting of the Bank Swallow in Oklahoma had nowhere been fully documented, I decided to watch that species closely. Just when it arrived from the south in 1980 I do not know, but two Bank Swallows were observed by John Sparkman on 28 March and on 3 April of that year I saw six Bank Swallows at one of the chat piles. The birds were fluttering about the burrow entrances in twosomes, as if paired. One colony on that date was obviously larger than the other: at that chat pile I counted 138 burrow entrances. The birds at both colonies might, for all I knew, have been doing some renovating or excavating on 3 April, but most of this important work they did later — between 15 and 22 April. By the end of April over 200 Bank Swallows were in the immediate vicinity of the two colonies.

By 6 May virtually all nests must have been finished, for that day I saw no bird carrying dead grass, feathers, or other nest material. Indeed, some full clutches of eggs probably had been laid by 6 May. Meanwhile, aided by Everett M. Grigsby and Floyd H. Dunning III, I put up mist nets in which to capture the swallows for banding. I made no attempt to examine nests repeatedly, for I was much more interested in getting as many birds banded as possible than in ascertaining just when egg-laying began, whether one egg was laid per day, etc. My helpers and I did determine, however, that nine occupied burrows were from 21 to 38 inches deep (averaging 32.6 inches) and that the lowest of the burrows were about 18 feet above the talus at the embankment's base. In his exhaustive "Studies of the Bank Swallow," Dayton Stoner (1936, Bull. N.Y. State College of Forestry at Syracuse University, 9:185) reported an average depth of 28 inches (minimum 15 inches, maximum 47 inches) for "89 occupied burrows" at a large colony in the Oneida Lake region of New York.

Mist nets hung not far from the burrows' entrances caught 159 adult swallows between 6 May and 5 June. My helpers and I made no attempt to band nestlings before they left the burrows. On 5 June fully fledged young began leaving their nests and seven of these flew into the nets. The nets continued to catch both young and old birds until 15 July, but many young birds that fledged in good order did not fly into the nets. Most of the fledging took place between 17 and 28 June. Many birds were recaptured, but only one adult captured at one chat pile was recaptured at the other chat pile.

Food in the form of flying insects must have been readily obtainable for both colonies. Most feeding of young took place early in the morning and late in the afternoon. On the afternoon of 13 June my helpers and I counted the food-visits of the parent birds at one burrow, ascertaining that at that time of

day the young were fed an average of 4.5 times per five-minute period — in other words about once per minute. That same day we counted 128 food-visits during one five-minute period at a section of the colony that had about one-third of the burrows.

At the larger colony (where I had counted 138 burrow entrances on 31 March) I counted 264 burrow-entrances at the end of June. Many of the 264 burrows were shallow. I know that at many burrows no young were reared.

I observed some Rough-winged Swallows using burrows dug by Bank Swallows during the previous year. In Michigan, Lunk (1962, Publ. Nuttall Ornith. Club No. 4, p. 132) found that Roughwings were "to a considerable extent dependent for nest sites upon the excavations of the Bank Swallows . . ." At both chat piles I saw Roughwings, and during the first part of April they were more common than Bank Swallows. The Roughwings nested in the highest and most isolated portions of the two chat piles, which made mist-netting particularly difficult. Our information on them is therefore limited.

We managed to band a total of 253 adult Bank Swallows, of which 102 were recaptured, and 118 young birds, only 18 of which we caught again.

BOX 486, R.R. 1, FAIRLAND, OKLAHOMA 74343, 9 AUGUST 1980.

THE SWAINSON'S HAWK IN SOUTHWESTERN OKLAHOMA

BY JACK D. TYLER

During a recent 13-year period (1967-1979) my several students and I failed to find a single occupied nest of the Swainson's Hawk (*Buteo swainsoni*) anywhere in southwestern Oklahoma, this despite (a) the species' being fairly common throughout the area in summer and (b) our being afield widely and often. Sutton (1967, Oklahoma Birds, Univ. Oklahoma Press, Norman, p. 110) stated that *B. swainsoni* breeds throughout western Oklahoma, naming Comanche as a county in which nesting had been observed, though Tyler (1979, Birds of southwestern Oklahoma [and supplement], Stovall Mus. Sci. & Hist., Univ. Oklahoma, Contrib. 2, p. 17 and Contrib. 3, p. 12) cited only two breeding records for the whole of southwestern Oklahoma, one of a nest (30 feet up in a cottonwood along Cave Creek 2 miles west and 1 south of Reed, Greer County) at which J. D. Ligon collected one of two small chicks (UOMZ 4165) on 12 June 1960, the other of a nest (in a tree 3 miles west and 2½ south of Eldorado, Jackson County) at which one young bird fledged in the summer of 1974 (*vide* J. W. Tinsley).

In the spring of 1980, my students and I found a nest. On 1 May of that year, Edward Sands, his wife Phyllis, Michael Granger, and I happened to see a Swainson's Hawk perched in a mesquite tree about 6 miles east of Snyder, Kiowa County, Oklahoma. As we were watching it, the bird flew from its perch to a dead mesquite close by and, while still flying, broke off a slender branch which it carried to the top of an elm about 50 yards away. So dense was the elm's leafage that the hawk disappeared in it; but when I climbed up I found a loose platform of 30 to 40 pencil-sized twigs in a crotch about 20 feet above

ground. The rudimentary nest was directly above the bed of a little creek and well shaded by the eastern part of the tree's crown.

Granger and I returned to the nest at 1815 on 5 May. Mud in the creek bed showed that there had been recent rain. As I climbed the elm both hawks watched from mesquite trees about 200 yards away. About 15 sticks had been added to the nest, which appeared to be about one-third completed.

When I next visited the nest (at 2035 on 11 May) it held one egg. One of the hawks was at the nest, though I am not sure that it was brooding the egg. One green twig was in the nest.

On 12 May, Dale Mills checked the nest at 2015. It held one egg. Neither hawk was at the nest, but one of the pair was perched in a tree not far away.

On 14 May, Mills flushed a hawk from the nest, which now held two eggs, one of them freshly flecked with blood. Several leafy twigs were also in the nest. Assuming that the second egg had been laid on 13 or 14 May and that incubation had started on that date, I calculated that hatching would take place on 10 or 11 June, 28 days being the "usual" incubation period according to Bent (1937, Life histories of North American birds of prey, Part I, Bull. U.S. Natl. Mus. No. 167, p. 226).

I last visited the nest on 15 June. It held two eggs. Neither transmitted light or made a "sloshing" sound when shaken. But no hawk was to be seen in the vicinity. The nest apparently had been deserted.

DEPARTMENT OF BIOLOGY, CAMERON UNIVERSITY, LAWTON, OKLAHOMA 73505, 30 DECEMBER 1980.

GENERAL NOTES

Anhinga in Tulsa County, Oklahoma. — On the morning of 18 May 1980, Bruce Reynolds and his wife Anne reported that they had briefly seen a bird that they thought to be an Anhinga (*Anhinga anhinga*) in the North Woods unit of the Mary K. Oxley Nature Center in Tulsa, Tulsa County, northeastern Oklahoma. The Reynoldses and the staff of the Nature Center looked for the bird during the next several weeks, but without success.

On 11 June 1980, Jeff Webster, a summer employee at the Nature Center, observed an Anhinga in this same area. It was perched in a tree that bordered a long pond, part of an old oxbow of Bird Creek. Jeff notified Eileen Docekal, Nature Center Naturalist, and summer employees Neal Muirhead, Terri Bruner, and Bernadette Brown, who found the Anhinga within minutes and followed it to a tall dead tree at the edge of a sewer line right-of-way just south of the pond. Here, in full sun, it remained for about two minutes before flying off to the southwest.

On 14 June 1980, a group from the Tulsa Audubon Society had good looks at an Anhinga at the oxbow pond. In the group were Gary Lee and his wife Ellen, John Dickerson and his wife Lynn, Alice Hensy, *et al.*

On the morning of 28 June, Neal Muirhead and I were checking the area when we saw a male Anhinga fly from north to south across the oxbow at a

height of about 40 feet. Within ten seconds, another Anhinga (possibly, though not certainly, a female) followed the first, flying at about 90 feet. Both birds emerged from the tree-line as we watched, circling ever higher above the oxbow until reaching perhaps 250 feet. They then disappeared to the west. We looked for them repeatedly from 28 June on, but did not see them again.

Anhinga anhinga is listed by Sutton (1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 21) as an irregular visitant to Oklahoma, recorded between 9 April and 29 October. Breeding pairs were observed in McCurtain County, southeastern Oklahoma, in 1937 (Nice, 1938, Auk, 55: 121-122) and in Sequoyah County, east-central Oklahoma, in 1971 and 1972 (Norton, 1973, Bull. Oklahoma Orn. Soc., 6: 12-13). The only previous records for Tulsa County are for Mohawk Park, in North Tulsa, in 1948. On 24 September of that year one was seen at Lake Yahola (then called North Lake) by Tom Jessee, Orrin Letson, and Ethel Letson; on 17 October, Peggy Acord saw three at Recreation Lake (Letson and Kassing, 1949, Proc. Oklahoma Acad. Sci., 30: 25). — Robert G. Jennings, *Mary K. Oxley Nature Center, 200 Civic Center, Room 642, Tulsa, Oklahoma 74013, 1 December 1980.*

Barnacle Goose in Custer County, Oklahoma.—At about 1245 on 14 February 1980 (a somewhat cloudy but bright, unseasonably mild, winter day), while I was scanning a flock of about 12,500 Canada Geese (*Branta canadensis*) in hopes of seeing individuals wearing colored neck-collars, I realized that one of the birds along the edge of the flock was a Barnacle Goose (*B. leucopsis*). The flock was feeding in a big field of winter wheat about a mile west of the Washita National Wildlife Refuge's "McClure Recreation Area" near Butler, Custer County, west-central Oklahoma. Realizing that refuge personnel would want to know of the bird, I radioed word of my observation to them. Within a short time C. Craig Heflebower and Jack Warner of the refuge staff and Kelly Myers of the Young Adult Conservation Corps staff joined me, and the four of us observed the rare goose through a Questar 120x spotting scope. It appeared to be a fully adult bird.

According to G. M. Sutton's summary of records, *Branta leucopsis* has not heretofore been reported from west-central Oklahoma. The species has, however, been shot as game in Alfalfa County, north-central Oklahoma, and it has been seen repeatedly in winter during recent years at the Tishomingo National Wildlife Refuge in Johnston County, southeastern Oklahoma.—Robert K. Green, *Northern Prairie Wildlife Research Center, Box 1747, Jamestown, North Dakota 58401, 29 February 1980.*

Wood Duck and Vermilion Flycatcher in far western Oklahoma.—In late afternoon on 30 May 1980, while Robert Andrews, James Loughlin, and I were driving along a gravel back-road about 4.6 miles east and 2.3 miles south of Kenton, Cimarron County, Oklahoma, my car broke down. Not far south of us was a farmhouse. East of us, about a quarter-mile across short-grass pastureland, was northward-flowing Willow Creek, along which were

scattered groves of cottonwood and willow. Near one of these groves I came upon a male and female Vermilion Flycatcher (*Pyrocephalus rubinus*), the former perched on a yucca stalk about 3 feet up, the latter on an exposed low willow twig. I never saw both at the same time, though they were not far apart. Neither carried food very far before consuming it, so I decided they were not feeding a brood. The male was less richly colored than males I have observed in Texas and Arizona, the red of his crown and underparts being of an orange shade.

Walking north along Willow Creek, I came upon a medium-sized, gray-looking duck afloat near some cattails. Its bill was two-toned. A white line encircling its eye extended backward toward its nape. It was a female Wood Duck (*Aix sponsa*), a species that seemed distinctly out of place in this arid country. As I moved closer, it sprang from the water, letting me see its comparatively unmarked wings. It flew northward about 40 yards and alighted in the creek, again close to cattails. Next, I examined the creek to the south of where I had seen the flycatchers, and from there a second Wood Duck flew up, this one a drake whose white head-markings, though noticeable enough, contrasted less with the dark markings than those of a bird in full breeding plumage would have. This duck also moved downstream, alighting not far from the female.

Between 0730 and 1000 the following morning (31 May), my companions and I saw the two flycatchers and the two ducks again. We failed to find the flycatchers' nest and decided that the ducks were not a breeding pair. The more noteworthy of the 35 bird species that we saw in the area were a Lewis's Woodpecker (*Melanerpes lewis*), two Cassin's Kingbirds (*Tyrannus vociferans*), an Ash-throated Flycatcher (*Myiarchus cinerascens*), a Pine Siskin (*Carduelis pinus*), and at least ten Cassin's Sparrows (*Aimophila cassinii*).

The Vermilion Flycatcher is known to have nested unsuccessfully in Major County, in the northwestern part of the main body of Oklahoma, in 1956; successfully in Lincoln County, central Oklahoma, in 1960; and successfully in or near Washington County, northeastern Oklahoma, in 1972; although reported several times from Cimarron County, it is not known to have nested there or elsewhere in the Panhandle (Sutton, 1974, Check-list of Oklahoma birds, Stovall Mus. Sci. & Hist., Univ. Oklahoma, Norman, p. 27). The Wood Duck, which breeds regularly in eastern Oklahoma, has been reported previously only once from the Panhandle — a female seen at Lake Etling, Black Mesa State Park, on 10 May 1973 (Tyler, 1975, Bull. Oklahoma Orn. Soc., 8: 18). — Mark Holmgren, *Section of Birds, Carnegie Museum of Natural History, 4400 Forbes Ave., Pittsburgh, Pennsylvania 15213, 17 October 1980.*

Lesser Scaup captured by Snapping Turtle.—At about 1300 on 18 May 1980 (weather mild; temperature 76° at noon; north-northwest wind 10-15 m.p.h.), while counting waterfowl at the Salt Plains National Wildlife Refuge in Alfalfa County, north-central Oklahoma, my two young sons and I noticed a drake Lesser Scaup (*Aythya affinis*) flapping its wings in the water

75-100 yards out from the dike of a large pond known as Casey Marsh. The duck continued to splash about, beating its wings violently as if doing its best to fly off. Obviously it was in a state of panic.

Several times, as we watched, the struggling scaup went completely under, each time going straight down rather than diving head first. When it surfaced, sometimes only its head was in sight. When, after a complete submergence, its whole body reappeared, it seemed to be tiring.

Curiosity got the best of me, and I started to wade out. The water was about 2½ feet deep. When I was within 50 yards of the duck, it went under again. As 15-20 seconds passed while I was approaching, I suspected that it was down for good. Then up it came, still trying desperately to fly off. The closer I got, the more it struggled, but it could not break free from what was holding it. Finally I reached it, seized it, and began lifting it from the water. Holding to its right leg was a huge Snapping Turtle (*Chelydra serpentina*) with head about twice the size of my fist.

While I was lifting the duck, the turtle did not jerk or pull but simply hung on like a dead weight. When I got the turtle's head above water, however, it released its hold, slid down into the muddy water, and disappeared. I never got a good look at its whole body. The scaup died while I held it. It will be preserved as a specimen.

In addition to the scaup that I took from the turtle, we counted that day on and near Casey Marsh the following waterfowl: nine Eared Grebes (*Podiceps nigricollis*), one Gadwall (*Anas strepera*), three Northern Shovelers (*A. clypeata*), five Lesser Scaups (two of them drakes), four Ruddy Ducks (*Oxyura jamaicensis*), and 16 American Coots (*Fulica americana*). All of these seemed to be in perfect health. Nor could I detect anything at all below par about the scaup that the turtle had caught. Lesser Scaups had been seen regularly, in varying numbers, since 12 March — only one (a hen) on 5 May, as many as 13 (both drakes and hens) on 12 May. At no time had anyone seen a drake "moping around" as if in poor health.

I suspect that the turtle, partly covered with mud, captured some of its prey through merely waiting at the pond's bottom. When the scaup, idling on the surface, drifted into position directly above it, the turtle swam slowly upward and, when close enough, shot its head forward with jaws open and clamped them shut on the duck's leg.—John A. Kirk, *Acting Refuge Manager, Salt Plains National Wildlife Refuge, Route 1, Box 76, Jet, Oklahoma 73749, 13 June 1980.*

Carolina Wren nest in hole in bank. — On 9 May 1980, while exploring a steep-walled excavation pit in a dry tributary to East Cache Creek near Lawton, Comanche County, southwestern Oklahoma, I found the nest of a Carolina Wren (*Thryothorus ludovicianus*) in a hole in the pit's north-facing wall. The hole was about 3.3 meters (10 feet) above the pit's floor. Its entrance was 14 centimeters (5½ inches) wide and the nest was 37.8 centimeters (15 inches) back from the entrance. I would not have found the nest had not one of

the wrens flown from the hole. I did not ascertain what the nest contained, for I did not want the wrens to desert it.

Hoping to band the wrens, I returned to the nest on 11 May. Louis E. McGee was with me. We did not catch a wren, but found that the nest held six eggs. On 12 May, accompanied by my wife Darleen, I tried again. This time I caught and photographed one of the wrens and photographed the one noticeably over-sized egg — that of a Brown-headed Cowbird (*Molothrus ater*). On 24 May the nest held four chicks — three wrens and a cowbird. The cowbird was about twice as large as the wrens. It was very active and its eyes were wide open, whereas the baby wrens' movements consisted chiefly in gaping for food and grasping with their toes and their eyes were not fully opened. We measured and photographed all four chicks and returned them to the nest.

I last visited the nest on 26 May, finding there three active and vocal young wrens but no cowbird. I am confident that the cowbird had fledged, though I failed to find it anywhere close by. It had appeared to be much older than its "siblings" on 24 May, and I cannot help believing that it had hatched before they did.

Thryothorus ludovicianus nests in a wide variety of places. Bent (1948, U. S. Natl. Mus. Bull. 195: 206) states that away from "human structures" it may nest "in a hole in a tree or stump, in the open crotch of a tree, in a densely branched cedar, in the upturned roots of a fallen tree, on the ground under the exposed roots of a tree or under dense undergrowth, in a hole in a bank or under its overhang among tangled roots, in a cavity in a stone wall, or even in a sheaf of grain in an open field." According to G. M. Sutton's summary of records, no nest heretofore found in Oklahoma has been in a "hole in a bank." Furthermore, though several nests found in the state have held eggs or young of the cowbird, no "Carolina Wren feeding fledged cowbird" has yet been observed in Oklahoma (Sutton, 1967, Oklahoma birds, Univ. Oklahoma Press, Norman, p. 411). — Michael F. Smith, 2323 A Ave., Lawton, Oklahoma 73505, 27 July 1980.

FROM THE EDITOR: For two good reasons the March issue of the *Bulletin* was badly delayed. George M. Sutton's extended stay at the hospital in November and December slowed editorial progress, particularly with the tables of the lead paper. Too, after the issue had been printed, a blemish was discovered on the front page — one so bad that the entire issue, colorplate and all, had to be reprinted. Previous issues have been printed on time but have sometimes been mailed late, a circumstance beyond the control of the editors. We believe that the need for accuracy and presentability far outweighs the desirability of timeliness. In this instance, editorial policy dictated that the issue be right.—Jack D. Tyler.

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