

HOW EARLY DOES THE GREAT BLUE HERON NEST IN OKLAHOMA?

BY JACK D. TYLER

Ardea herodias inhabits Oklahoma throughout the year, and although some populations are probably sedentary, "considerable numbers" are thought to migrate into and through Oklahoma in spring and fall (Sutton, G.M., 1967, *Oklahoma birds*, Univ. Oklahoma Press, Norman, p. 27). Prior to 1992, the earliest published evidence of nesting activity in the state appears to have been on 15 March 1923, when Vera Gilmore collected four eggs from a nest in Tulsa County (Force and Koons,



GREAT BLUE HERON

FIG. 1. Adult near nest photographed at Hog Island, Aransas County, Texas, by Douglas W. Mock in March 1973.

1930, *Wilson Bull.* 42:119). In the opinion of George M. Sutton, these eggs had been laid "exceptionally early" (Sutton, 1967, *loc. cit.*).

In Delaware County, northeastern Oklahoma, on 16 March 1973, James W. Lish counted 52 nests in a 100-foot sycamore tree (*Plantanus occidentalis*) at the eastern end of Lake Eucha (upper Spavinaw Lake). Some of the herons there were "busy with nest-building, others squatting on what probably were eggs" but Lish commented that "...no data at hand makes clear that eggs ever hatch that early in Oklahoma" (Lish, J.W., 1974, *Bull. Oklahoma Ornithol. Soc.* 7:4).

On the afternoon of 6 March 1992, several of my natural history students and I discovered a small rookery in two large pecan trees (*Carya illinoensis*) along a small creek 5½ miles east of Waurika in Jefferson County, south-central Oklahoma. All nine nests were 35–40 feet high, six in one tree, three in the other. Nine adult birds were attending nests, at least two of them apparently incubating, while a few others stood nearby. When we stopped, the big herons flew up and, as we watched from about 300 yards, circled slowly about.

As we proceeded eastward on U.S. Highway 70, we found another small rookery 6 miles east and a mile south of Ardmore in Carter County. Here we counted 18 herons at or near 15 nests that had been constructed near the tops of two huge cottonwood trees. These nests were perhaps 50 feet up, and adults were settled down on six of them.

On 8 March we visited a heronry in a cypress swamp in southeastern McCurtain County. In two exceptionally tall cypress trees (estimated to be nearly 100 feet in height), were six nests 70 to 90 feet up. As we watched, one of the four Great Blues present sailed in with a long, forked stick and positioned it into a nest.

A few days earlier, on 1 March 1992, Sam Orr had noticed Great Blue Herons in Comanche County carrying small limbs into trees along East Cache Creek on Fort Sill. Unfortunately, he failed to count birds or nests.

While the above dates are quite early, they were pre-dated by nearly a month that same year when, on 4 February, Aline Romero and others observed 75 or more adult herons as they worked on nests at an old heronry near Keystone South River Road not far from Keystone Reservoir in Tulsa County, Oklahoma (*The Scissortail* 42 (2):27, 1992). In Texas, Mock (1975, *Bull. Texas Ornithol. Soc.* 8:10) estimated that eggs were laid on or about 1 January 1973 at a heronry on Hog Island in Aransas County after he discovered nine nests there that held either eggs or young chicks on 5 February (see cover photo).

The breeding behavior described herein was undoubtedly facilitated by abnormally mild temperatures during the winter of 1991–92. New highs for many mid-winter dates were set over much of the United States, and Oklahoma was no exception. The normal average highs and lows for December thru February for the Fort Sill Military Reservation in Comanche County since 1940 were 52/32°, 49/28°, and 55/32°F, but for these same months in 1991 and 1992, readings were 50.2/36.4°, 53/32°, and 61.4/39.8°F, respectively. Many days ranged above 70°F.—Jack D. Tyler, *Dept. of Biology, Cameron University, Lawton, Oklahoma 73505, 17 March 1992.*

GENERAL NOTES

Anhinga nesting update in McCurtain County, Oklahoma.—Nesting of Anhingas (*Anhinga anhinga*) in Oklahoma has been documented seven times. All

breeding has occurred in McCurtain and Sequoyah counties (Nice, M.M., 1938, *Auk* 55:121-122; Norton, P.W., 1973, *Bull. Oklahoma Ornithol. Soc.* 6:12-13; Heck, B.A., 1991, *Bull. Oklahoma Ornithol. Soc.* 24:13-14).

A 1991 record in the Little River National Wildlife Refuge in McCurtain County (Heck, B.A., *op. cit.*) which verified two Anhinga nests should be supplemented to include an additional eight nests constructed in the same ardeid rookery (number 1) subsequent to my original observations and two others elsewhere. An estimated 25 Anhingas fledged from these 10 nests in rookery number 1.

During the 1992 breeding season, I discovered eight Anhinga nests on 4 May in rookery number 1, but when I visited it again on 14 June, all eight had been abandoned. However, I did find a late ninth nest there in which I later saw two young.

On 14 June 1992 I also located two more Anhinga nests in a recently established Great Blue Heron (*Ardea herodias*) and Great Egret (*Casmerodius albus*) rookery (number 2) on the refuge. The herons had constructed their nests in bald cypress trees (*Taxodium distichum*) approximately 20 m tall growing in and near a circular oxbow lake some 350 m in diameter located 11.3 km southeast of Broken Bow. This rookery, approximately 8.5 km east of rookery number 1, contained only one active Anhinga nest, which held two naked young. However, it was not checked subsequent to its discovery, so its outcome is unknown. Because these Anhinga nests were denser, more rounded and composed of smaller twigs, they were readily distinguished from the heron nests.

Four of the five Great Blue Heron and Great Egret rookeries on the refuge that were active in 1992 were abandoned in 1993. Rookery number 2 was the only one active on 10 March 1993 and was selected for monitoring through the breeding season by Oklahoma State University graduate student Bruce Corley as part of his research on Great Blue Herons.

On 9 April 1993, Corley and I visited this rookery and observed eight active Anhinga nests high up in cypress trees. On 24 April only five of these nests were still viable, and on 15 May Corley found but a single nest being tended. Even it was inactive on 27 May, a date too early for nestlings to have fledged, thus confirming yet another nest failure.

I located a new Great Blue Heron and Great Egret rookery (number 6) on the refuge on 27 May 1993, where I found two Anhinga nests, each holding three naked young. Also situated in large cypresses, this rookery was at the north end of an L-shaped oxbow lake 700 m long and 60 m wide lying approximately 9.5 km south of Broken Bow and about 5 km west of rookery number 2.

In summary, during 1991 an estimated 25 Anhingas fledged from 10 nests in the only Little River National Wildlife Refuge Anhinga rookery known at that time (number 1). During 1992, I found nine Anhinga nests in rookery number 1 and two nests in an additional rookery (number 2), but only one nest fledged young in each. I estimated that together they produced only four young birds. During 1993, rookery number 1 was abandoned, but there were eight Anhinga nests in rookery number 2, plus two additional nests in a new rookery (number 6). All but two of the 10 nests in 1993 were abandoned, but these two nests fledged a total of three young Anhingas.—Berlin A. Heck, *Manager, Little River National Wildlife Refuge, P.O. Box 340, Broken Bow, Oklahoma 74728, 10 September 1993.*

Additional information on Bald Eagle breeding in Oklahoma.—After the publication of our article on recent Bald Eagle (*Haliaeetus leucocephalus*) nest records in Oklahoma (Jenkins and Sherrod, 1993, *Bull. Oklahoma Ornithol. Soc.* 26:25-28), we received information that the nest near Tamaha, Oklahoma, fledged two young in 1993. This is contrary to our statement that there were no young produced at that site. The pair there built a new nest about three-quarters of a mile east of their previous nests, and we failed to see it during our aerial survey on 5 April. This increases the number of productive nests known in 1993 to three and the number of fledged young to five.

We thank John and Susie McGuire for providing the information on this pair.—M. Alan Jenkins and Steve K. Sherrod, *George M. Sutton Avian Research Center, P.O. Box 2007, Bartlesville, Oklahoma 74005, 11 November 1993.*

Cooper's Hawk preys on Scissor-tailed Flycatcher nestling.—During the 1991 and 1992 breeding seasons, I studied the reproductive biology and social organization of Scissor-tailed Flycatchers (*Tyrannus forficata*) on the Fort Sill Military Reservation in Comanche County, southwestern Oklahoma (Regosin and Pruett-Jones, in press). I monitored 58 nests in 1991 and 102 nests in 1992 that reached at least the egg-laying stage. Of the nests monitored, 33 (56.9%) in 1991 and 83 (81.4%) in 1992 failed to fledge nestlings. In 26 cases (44.8%) in 1991 and 37 (36.2%) cases in 1992, eggs or nestlings disappeared from intact nests, indicating predation. An additional 13.8% (8) of 1991 nests and 7.8% (8) of 1992 nests suffered partial clutch or nestling reduction, also probably a result of predation. The statistically significant difference in nest failures during 1992 (Chi square = 9.9; df = 1; p = 0.002) was largely the result of an unusually severe windstorm during the early morning hours of 21 June (Regosin and Pruett-Jones, *loc. cit.*) when 25 of 35 (71.4%) nests under observation were destroyed.

There are a number of potential nest predators on Fort Sill including a variety of snakes, birds, and mammals. Despite the high rate of suspected predation on Scissor-tailed Flycatcher nests, I personally observed only a single case.

On 25 July, 1992, beginning at 0810, I was stationed beside my automobile, observing a nest from a distance of approximately 75 m through a spotting scope. The nest, 8½ feet off the ground, was in a mesquite tree. At 0903, an adult Cooper's Hawk (*Accipiter cooperii*) flew to the nest, removed one of the two 12-day-old nestlings therein, and killed it on an adjacent perch. At 0904, the hawk flew off with its prey, pursued by three adult Scissor-tails. The remaining flycatcher nestling fledged successfully on 29 July.

This research was funded in part through grants from the Frank M. Chapman Memorial Fund, Sigma Xi, the Hinds Fund, and the Oklahoma Ornithological Society.—Jonathan V. Regosin, *The Nature Conservancy, 45 South Angell Street, Providence, Rhode Island 02906, 4 September 1994.*

American Woodcock activity in the Wichita Mountains Wildlife Refuge.—The American Woodcock (*Scolopax minor*) is an uncommon migrant that has been infrequently reported during summer in eastern Oklahoma; records for western sections of the state are sparse (Baumgartner and Baumgartner, 1992, *Oklahoma bird life*, Univ. Oklahoma Press, Norman, p. 169). For Comanche County, southwestern

Oklahoma, 14 records are known (Tyler, J.D., 1979, *Birds of southwestern Oklahoma*, Contrib. Stovall Mus. Sci. & Hist. No. 2, Univ. Oklahoma, Norman, p. 22; J.D. Tyler field notes). The woodcock is noted for the male's unique spiralling courtship flights.

The Wichita Mountains Wildlife Refuge is situated in northwestern Comanche County with headquarters in its southwestern quadrant. It was only a short distance north of headquarters where, between 16 and 24 February 1994, I heard and observed up to four American Woodcocks.

I first heard woodcocks in a mature mixed grass area of perhaps five acres located between the corrals northeast of headquarters and the sewage lagoon directly to the south of them. Four were "peenting" between 0640 and 0650 on 16 February. Three of these were calling from the grassy area north of the sewage pond. The next day was windy. Between 0644 and 0705, three woodcocks were heard simultaneously, with two "peenting" and one flight "twittering." I saw two flights involving two different birds at 0645 on the 18th, another windy morning, and heard birds "peenting" from both sides of the road at the same time. I noticed one woodcock just as he launched into his spiral flight north of the road. He then drifted directly above my head, south toward the lagoon.

From 0640 to 0645 on 22 February, I heard "peents" six to seven seconds apart, again from each side of the roadway. The north calling site was between a plum thicket and two small hackberry trees. Suddenly, at 0643, the woodcock there flew up and began a spiral flight, passing only 30-40 feet above me.

The last date on which I encountered woodcocks was during the evening of 24 February. On this very moonlit night, I heard two birds "peenting" from south of the road at 1850. At 1902, a woodcock in spiral flight passed overhead south to north, then "chirped," indicating the end of the flight; momentarily, I heard probably the same individual "peenting" from the grass, the "peents" being only four or five seconds apart. At 1906, he began another spiral flight that sounded as if it were carrying him southward. I continued to listen until 1925, but neither heard nor saw other woodcocks. Between 0700 and 0720 on 7 March, a warm morning (55°F) with moderate winds of 10-15 mph, no woodcocks were observed or heard.—Kenneth O. Butts, *Deputy Manager, Wichita Mountains Wildlife Refuge, P.O. Box 448, Indianola, Oklahoma 73552, 9 March 1994.*

Yellow-billed Cuckoo hatched in Mourning Dove Nest.—Yellow-billed Cuckoos (*Coccyzus americanus*), unlike their European, African, and Asian relatives, are not obligate parasites. Although they typically build their own nests or use an old nest from another species, they occasionally deposit their eggs in the active nest of another species (see Bent 1940). In Oklahoma, Yellow-billed Cuckoos have been known to parasitize Northern Cardinals (*Cardinalis cardinalis*) Dickcissels (*Spiza americana*), and Mourning Doves (*Zenaida macroura*) (Nice 1931; Sutton 1967; and Baumgartner and Baumgartner 1992). Cases where young cuckoos have been raised by host species are rare. Darwin (1872) mentioned a cuckoo that fledged from a Blue Jay (*Cyanocitta cristata*) nest, and Nickell (1954) found a Red-winged Blackbird (*Agelaius phoeniceus*) nest that was parasitized by, and eventually fledged, a Yellow-billed Cuckoo. Hamilton and Orians (1965) believed that in North America, deposition of cuckoo eggs in other species' nests was accidental

and not true parasitism.

On 11 July 1994, I flushed a Mourning Dove from a nest near Pawhuska Lake in Osage County, north-central Oklahoma. The nest was poorly constructed, even for a Mourning Dove, and contained a single cuckoo egg. On 13 July, a Mourning Dove egg was added and two days later, still another. I measured all three eggs on the latter date. On 19 July, one of the dove eggs was missing, but I could find no egg or shell fragments on the ground below; because of its precarious position, I suspected that the second dove egg had fallen from the nest. A young cuckoo, not more than one or two days old, was in the nest next to the dove egg on 22 July. Unfortunately, the nest wasn't checked again until 28 July, at which time it was empty. Whether the nest was depredated or abandoned is unknown. Considering the differences in feeding behavior and food requirements, it is doubtful that the cuckoo chick could have been raised by doves.

As part of a major study of breeding prairie birds, personnel of the George M. Sutton Avian Research Center in Bartlesville, Oklahoma, monitored over 3000 nests between 1992 and 1994, including 252 Mourning Dove nests. The only other nest parasitized by cuckoos was also that of a Mourning Dove. It was found by Chris S. Snow, Kristine N. Arruda, and David A. Zuwerink in Washington County in 1993. No eggs ever hatched at this nest, which was subsequently abandoned.

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—Donald H. Wolfe, *George M. Sutton Avian Research Center, P. O. Box 2007, Bartlesville, Oklahoma 74005, 7 September 1994.*

Notable recaptures of banded Ruby-throated Hummingbirds—From 1976 to 1990, Drs. Fred M. and Marguerite Baumgartner operated the Little Lewis Whirlwind Nature School and Sanctuary near Jay, Delaware County, northeastern Oklahoma, where Mrs. Baumgartner banded nearly 3000 Ruby-throated Hummingbirds (*Archilochus colubris*; see Baumgartner, 1989, *Bull. Oklahoma Ornithol. Soc.* 22:3-5). During the summer of 1991, after the Baumgartners had moved to Georgia, but before the property was sold, I banded an additional 131 Ruby-throated

Hummingbirds at the sanctuary.

Besides those I banded, I retrapped 13 hummingbirds that had been banded by Mrs. Baumgartner. One of these, an adult female (United States Fish and Wildlife Service [USFWS] No. X35419) banded on 19 June 1986 was at least six years of age when it entered my trap on 26 July 1991. Another adult female banded by Baumgartner on 1 September 1978 (USFWS No. X20239) and finally retrapped on 11 June 1986 was one of only two Ruby-throats ever known to have attained the age of nine (USFWS Bird Band. Lab. Rept. JOBBBL 93-21-1065, 10 March, 1994).

On 12 July 1991, I banded an adult male Ruby-throated Hummingbird (USFWS No. T30777) at the sanctuary. Then, on 23 July 1994, I recaptured this same individual at my home in Grove, Oklahoma, approximately 20 miles away. While not an unexpected distance for a hummingbird to roam or a particularly unusual age for a male hummingbird to attain, actually encountering a banded individual of this age at a site this far removed from its original banding location three years later is, indeed, a rare and exciting event.—Ellie Womack, 1022 S. Sycamore Drive, Grove, Oklahoma 74344, 5 August 1994.

Leucistic Swainson's Thrush in Muskogee County, Oklahoma.—On 5 May 1992, at 0800, I was walking the nature trail in our bird sanctuary near Fort Gibson, Muskogee County, northeastern Oklahoma. This natural area covers six acres of typical Eastern forest trees underlain with dense shrubbery. I had already tallied 33 species of birds and was about to leave, when I glimpsed a light-colored bird in the brush near ground level. Even though I was having difficulty clearly seeing this bird, I could hear the distinct "drip" call of a Swainson's Thrush (*Catharus ustulatus*) from its direction. When I was finally able to see the rather secretive bird, I was fascinated by its pale beige color and immaculate breast. Moreover, it was typically thrush-like in behavior, size and shape. It was a "leucistic" thrush, and judging from its call note, a Swainson's. Leucism (paleness) reflects dilution of normal pigmentation (Thomson, A.L., 1964, *A new dictionary of birds*, Thomas Nelson and Sons Ltd., London, p. 643). For three or four more minutes I watched it before it disappeared into the undergrowth. I did not see it again after that date.—Jeri A. McMahon, 311 Bayou Road, Ft. Gibson, Oklahoma 74434, 10 July 1992.

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