Expansion of range by a bird species is a phenomenon deserving of careful study. The thoughtful observer cannot help wondering whether an expanding species is merely shifting — i.e., leaving one area for another — or whether, as a result of "biological success" and consequent overcrowding, some individuals are obliged to move out, thus making room for all. If some birds must move, which ones are they — the oldest and most experienced, or the youngest and most easily pushed out? Careful observing, banding, color-marking, and collecting of specimens will eventually provide answers to questions of this sort.

Details of range expansion are likely to be obscure if the species is small, inconspicuous, hard to identify, or restricted to a "difficult" habitat; but if the species be large and easily recognized its spread can be documented with considerable accuracy. The Great-tailed Grackle (Cassidix mexicanus), a noisy, noticeable bird, has become an important part of Oklahoma's avifauna within the past 20 or so years. The following paper documents this species' spread since its first appearance (1953), first observed breeding (1958), and first ob-
served overwintering (1963-64) in the state. The northward spread here reported has been only part of a striking range expansion within recent decades. Spread through Arizona, New Mexico, and extreme western Texas has been reported by Phillips (1950, Condor, 52: 78). Spread northward through central Texas and eastward to southeastern Texas and southwestern Louisiana, where it has invaded the range of the Boat-tailed Grackle (*C. major*), has been discussed by Selander and Giller (1961, Condor, 63: 35-38). Until very recently the Great-tailed and Boat-tailed grackles have been considered conspecific by most bird students, but alleged ecological, morphological, and behavioral differences are believed by some to declare them distinct species that breed sympatrically without hybridizing (Selander and Giller, *op. cit.*, pp. 35-81; Eisenmann *et al.*, 1973, Auk, 90: 417). Some ornithologists, including Sutton (1974, Check-list of Oklahoma birds, p. 41) continue to consider the two forms conspecific.

**EARLY OCCURRENCE AND FIRST NESTING**

The Great-tailed Grackle had moved northward as far as Fort Worth, Texas, by 1944; it had become so well established there and at Dallas that by 1952 it was considered common about 100 miles south of the Oklahoma state line (Kincaid, 1956, Texas Game and Fish, 16: 10). In 1953 two widely separate birds were recorded in Oklahoma — a female seen at close range by George M. Sutton *et al.* with a flock of Common Grackles (*Quiscalus quiscula*) on 28 April in Norman, Cleveland County, central Oklahoma, and a male seen by Paul F. Nighswonger and S. F. Little on 29 June near Alva, Woods County, northwestern Oklahoma (Selander and Giller, *op. cit.*, p. 35; Sutton, 1967, Oklahoma birds, p. 553). No sightings were reported in 1954 or 1956, but in May 1955 and May 1957 the species was seen in south-central Oklahoma (Johnston and Carter counties respectively) and on 14 July 1957, along the north shore of Lake Texoma near Willis, Marshall County, south-central Oklahoma, G. M. Sutton collected the first specimens for the state — an adult male and a juvenile male (UOMZ 3123, 3124), the latter flying strongly.

The species may well have bred in south-central Oklahoma in 1957. People who lived near a cluster of 15 farm ponds in a hilly area with intermixed grasslands and oak woods a mile north of Ardmore, Carter County, informed me (in 1962) that the "big blackbirds" had summered thereabouts since 1957. Some of the ponds had marshy edges.

In the summer and fall of 1957 there must have been an extensive northward movement in central Oklahoma. On 8 November of that year my wife Sandra and I happened upon a flock of 36 birds in a farmyard about 14 miles northwest of Norman. That day G. M. Sutton and I collected four specimens — an adult male, an adult female, and two females in first winter feather (UOMZ 3232, 3233, 3234, 3235). Owners of the farm informed me that they had observed the strange birds feeding and roosting thereabouts for "three or four
months” previously. I continued to see this flock until early December, but I believe they did not overwinter there.

The species reappeared (three males and a female) near Norman on 22 March 1958 (W. M. Davis). On 12 May of that year I found a colony at a small, shallow impoundment known as Anderson Lake about 3 miles northwest of Norman — thus establishing the first breeding record for the state. The 13 nests were within a roughly rectangular area measuring about 10 x 50 yards along one shore of a narrow arm of the lake. All the nests were in willows that stood in water 4 to 24 inches deep. Of six nests that I climbed to on 17 May, four contained recently hatched young, the two others four eggs each. On 25 May three or four young birds were able to fly fairly well; two almost fledged young (males, UOMZ 3359, 3360) that had fallen from a nest into the water I collected; of ten nests that I climbed to, five held eggs or eggs and small young, two contained well developed young, and three were empty. As late as 22 June one nest held eggs, but I am not sure that these hatched.

I think it likely that Cassidix mexicanus nested in several areas south of Cleveland County in 1958. When, in 1962, I observed several pairs nesting in medium-sized willows along the edges of farm ponds a mile or so south of Marietta, Love County, south-central Oklahoma, people living nearby told me that the birds had established themselves there "about 1958."

SPREAD NORTHWARD

What I had experienced in 1957 and 1958 led to my continuing interest in the Great-tailed Grackle’s spread through Oklahoma. Activity stimulated by this interest reached a peak in June 1962, when I travelled about 900 miles through several counties in the central part of the state, seeing an estimated total of 260 breeding birds, and in May and June 1963, when I travelled about 2000 miles, visiting additionally several counties (principally Choctaw) in the eastern third of the state, and seeing about 600 breeding birds. I moved from Oklahoma to Mississippi in January 1964, so subsequent field work by me in Oklahoma was limited to brief visits in the latter part of the breeding season in 1964, 1968, and 1969. From that year on, no one person attempted to find new breeding colonies, but bird students throughout the state had been alerted as to the need for further information and records continued to be sent to George M. Sutton, who filed and correlated the data.

The northward thrust of invasion has been through the main body of the state. All records for 1953, 1955, 1957, 1958, and 1959 were from central Oklahoma, the most northerly and westerly of them, and also one of the two earliest (for Alva, Woods County), being of a single non-breeding male bird. The first documented breeding for the state was in 1958 in Cleveland County, but breeding almost certainly had occurred south of Cleveland County in 1957 or earlier (see above). In Oklahoma County J. G. Newell saw a pair at Lake Hefner on 28 April 1959. Breeding was first observed in that county in 1960.
(1960, Audubon Field Notes, 14: 460): on 30 May of that year John S. Shackford found at least 35 nests in willows in a swampy spot in Oklahoma City. A single male bird seen 6 May 1960 by G. M. Sutton near Pauls Valley, Garvin County, south-central Oklahoma, a flock of four males seen 20 May 1960 by D. D. Drew in Lawton, Comanche County, southwestern Oklahoma, and a single female seen 16 April 1960 by L. B. Reynolds and Anne Reynolds in Tulsa, Tulsa County, northeastern Oklahoma, may or may not have represented breeding populations.

In 1961 breeding was observed in Grady County, central Oklahoma: on 28 June of that year, at a pond 3 miles north of Minco, G. M. Sutton and John Janovy Jr. found a small colony nesting in tall cattails; the set of three eggs collected (first for the state) were in a nest about 2½ feet above water 2 feet deep. On 1 July I saw several adult and young birds at this pond. Two male birds seen on 6 May 1961 by J. P. O'Neill near Poteau, LeFlore County, southeastern Oklahoma, 15 males seen by me on 7 May 1961 near Hugo, Choctaw County, southeastern Oklahoma, and birds seen in the summer of that year in Canadian, Garvin, Carter, and Johnston counties probably were breeding.

By 1962 the species had moved northward in central Oklahoma at least as far as Enid, Garfield County, where a single male was seen in late June and where adult and young birds were seen in July and August (R. G. Keck). In September of 1962 Keck saw a small flock near Dover, Kingfisher County. At the hatchery ponds near Durant, Bryan County, southeastern Oklahoma, I was told by employees that large numbers of the grackles summered there in 1962; the first definite record for Bryan County was, however, of nine birds seen at the ponds by R. J. Taylor on 3 November 1962.

In 1963 the species occurred widely in eastern Oklahoma: in early summer of that year I observed thriving colonies in Bryan and Choctaw counties; my wife and I saw ten birds in southwestern Pottawatomie County on 26 April; M. E. Sisk and R. Baumgardner saw the species near Kiamichi, Pushmataha County, on 21 April; G. M. Sutton et al. saw males and females in Muskogee, Muskogee County, on 27 April (but found no nests); and Ethel Getgood et al. saw a single male in Tulsa, Tulsa County, on 15, 16, and 29 May. A lone female seen by G. M. Sutton in Anadarko, Caddo County, southwestern Oklahoma, was thought at the time not to represent breeding, but when I visited Anadarko myself in late May of 1968 two persons told me that the "strange birds" had been nesting there for several years "in large elms."

In 1964 the species bred in small numbers in Tulsa County: on 27 April nest-building was observed at a heronry on the Romac farm just southeast of Tulsa (Anne Reynolds); on 20 June four males and two females were seen at the same heronry (L. B. Reynolds, Anne Reynolds, J. S. Tomer); on 27 June several nesting birds were seen at the same heronry (F. S. Romero et al.); on 6 July two nests were found (not examined) at the same heronry (J. S. Tomer, L.
B. Reynolds); and on 17 July the species was seen on the Garnett Prairie in eastern Tulsa County (Letitia Johnston et al.).

By 1964 the species had also reached Payne County, north-central Oklahoma (first noted 12 April northeast of Stillwater by J. D. Naff and J. W. Humphrey; three pairs observed nesting at Boomer Lake near Stillwater in June and July by F. M. Baumgartner and Marguerite Baumgartner), Okmulgee County, east-central Oklahoma (nesting observed in May and June at heronry near Morris by Henrietta Pitchford), and Mayes County, northeastern Oklahoma (male seen 5 May at Grand Lake dam by P. Buck) — not to forget Sedan, Kansas (about 30 miles northwest of Bartlesville, Oklahoma), where it was seen “in early April” (1964, Audubon Field Notes, 18: 465).

In 1965 breeding was reported for the first time from Comanche County (females observed carrying nest material on 31 May in Lawton by Janet M. McGee) and Tillman County, southwestern Oklahoma (females observed nest-building in willows on small island in White’s Lake on 1 May by L. W. Oring), and a specimen collected near Ada, Pontotoc County, central Oklahoma, on 22 July by B. E. Hisle represented the first definite record for that county. In Murray County, south-central Oklahoma, G. W. Dickson observed several pairs with partly built nests in bulrushes at Lowrance Lake, 4 miles south of Sulphur, on 30 April. In Muskogee County, on 13 April, Mary P. Williams saw several pairs at a heronry near Boynton.

In 1966 the species was reported for the first time from Stephens County, south-central Oklahoma (male seen by Dorothy A. Paul along North Claridy Creek in Duncan on 28 March; about ten males seen in same area on 2 and 3 May by Dorothy A. Paul et al.) and from Custer County, west-central Oklahoma (one seen near Butler on 21 May by B. D. Graves and D. J. Snider).

In 1967 the Great-tailed Grackle was reported for the first time from Grant County, north-central Oklahoma (several males and females seen 18 June along north edge of Medford by L. L. Byfield) and from Washington County, northeastern Oklahoma (several seen on 7 and 11 May near Bartlesville by Maryan Matuszak and Dotty M. Goard). In 1967 considerable numbers were observed nesting in the heronry near Boynton (Mary P. Williams).

In 1968 breeding was reported from Pontotoc County (Davidson, 1969, Bull. Oklahoma Orn. Soc., 2: 8); from northwestern Logan County, north-central Oklahoma, where Winnie Branen saw the species repeatedly in Marshall in May, June, and July; and from Tillman County, where J. H. Black observed a colony in Tipton (1970, Bull. Oklahoma Orn. Soc., 3: 33). On 29 May 1968 I saw several Great-tailed Grackles in Anadarko, Caddo County (see paragraph above dealing with 1963 records).

By 1969 observers throughout the state were on the lookout for Great-tailed Grackles, and records poured in from areas in which the species had been breeding as well as from several “new” areas. On 2 May, near Waurika,
Jefferson County, south-central Oklahoma, J. D. Tyler et al. saw about 30 birds of both sexes and were told that the "big blackbirds" had been summering there "the past few years." On 23 May, in Tillman County, J.T. Black (loc. cit.) observed female birds carrying tadpoles of the Plains Spadefoot (*Scaphiopus bombifrons*) from a shallow temporary pool to nests high in big cottonwoods in Tipton. On 24 May in Wagoner County, east-central Oklahoma, in the Jackson Bay area of Fort Gibson Reservoir, J. L. Norman et al. observed a small colony nesting in cattails; the one nest found that day held three eggs. On 11 June Zella Moorman saw the species not far east of the 100th meridian near Arnett, Ellis County, and in Mooreland, Woodward County (1969, Audubon Field Notes, 23: 672). On 3 June my wife and I saw three males and three females (not necessarily three pairs) in cultivated fields along the highway between Ingersoll and Cherokee, Alfalfa County, north-central Oklahoma. By 1969, therefore, the species probably had reached northernmost Oklahoma in considerable numbers, though it had not been observed actually breeding there.

On 2 May 1970 G. M. Sutton saw the Great-tailed Grackle repeatedly in southern Kansas, just north of the state line, along the highway between Interstate Highway 35 and Winfield — a stretch directly north of Kay County, north-central Oklahoma. He had no opportunity to look for nests, but was convinced that the birds were settled for the season.

In 1971 breeding was reported for the first time from Custer and Beckham counties, west-central Oklahoma (several seen on 29 May in Weatherford by G. M. Sutton and T. L. Best, and in Elk City by Ina S. Brown, G. M. Sutton, and T. L. Best); from Pittsburg County, southeastern Oklahoma (many observed among "second growth elms and bois d'arc" at a heronry near McAlester on 12 June by W. A. Carter, D. M. Mullins, and J. V. Cecil); and from Greer County, southwestern Oklahoma (several seen in Mangum on 15 June by James M. Parker). In Payne County one breeding population was observed at Stillwater 19-27 May (Zella Moorman et al.), another at Cushing 30 May (Deloris Isted).

On 27 November 1971 a female bird that had been banded on 17 May 1970 in Cleveland County was found dead in Enid, Garfield County — proof that the individual had moved northward a considerable distance during the first 18 months of its life (Harden, 1972, Bull. Oklahoma Orn. Soc., 6: 16).

In 1972 the species was recorded for the first time in McCurtain County, southeastern Oklahoma (male seen on 15 April by R. Goolsby 8 miles west, 1½ miles south of Idabel) and in Kiowa County, southwestern Oklahoma (two males in Gotebo on 5 May (G. M. Sutton), though at Frederick and Davidson in Tillman County, that same day, the only grackles seen were Common Grackles (G. M. Sutton).

In 1973 the species was reported for the first time from Coal County, southeastern Oklahoma (33 birds seen on 13 April by J. D. Tyler et al., 25 of them at Tupelo, eight at Coalgate) and from Jackson County, southwestern
Oklahoma (about 50 seen on 26 August in mesquite trees near Eldorado by J. D. Tyler, W. S. Bartush, and J. W. Ault).

In 1974 it was reported for the first time from Roger Mills County, west-central Oklahoma (five seen near Durham on 28 April by Rena Ross). Four birds seen on 2 May of that year near Fargo, Ellis County, by J. D. Tyler et al. represented, so far as known, the northwesternmost sighting for the state. By 1974 spring- and summer-sightings had been reported from many scattered localities in the main body of the state, none of them, however, from the northeastern, northwestern, and southwestern corners (respectively Ottawa, Harper, and Harmon counties).

From the record it appears that the Great-tailed Grackle has been very slow in establishing itself in the southeastern corner of Oklahoma. Even today we know very little about its status there. Near Idabel, McCurtain County, Robert Goolsby saw a single male bird in April 1972, as stated above. He saw another male near Idabel on 2 April 1975. Then, determined to confirm his identification, he and his mother, Margaret Goolsby, spent several hours scouring the countryside on 11 April, finally coming upon a company of at least 24 males and females along "an old riverbed slough now under six inches of water, and with much undergrowth in the hedgerows and sparse big and little trees." These were probably a breeding colony; but whether the spread into that area has been eastward from south-central Oklahoma or northward from eastern Texas is a question that cannot be answered at this writing.

OVERWINTERING

Since winter weather in Oklahoma is not often severe before Christmas, and since spring often starts early, sightings of Great-tailed Grackles in mid-December and late February can hardly be considered proof of overwintering. A single female seen by John G. Newell with a flock of Red-winged Blackbirds (Agelaius phoeniceus) on 22 February 1961 at Lake Hefner in Oklahoma City probably was overwintering. The three birds (two males and a female) that Newell saw at Lake Overholser on 11 March 1961, the 12 birds that he saw at Lake Hefner on 2 and 17 March 1962, and the 30-some birds that he saw at Lake Overholser on 17 March 1963 might, however, have been recent arrivals from the south.

In 1963-64 overwintering at Oklahoma City began in earnest. On 28 December 1963 a company of about 75 birds that had been seen "all fall" was observed (1964, Audubon Field Notes, 18: 259, 368). This not very large population fed in pasturelands and at feedlots and roosted with the hordes of other blackbirds (principally Redwings) in dense stands of cattail along the shores of Lake Overholser. This Oklahoma City winter population became larger as the years passed. The 54 birds that M. M. Dodson poisoned at a feedlot near Yukon, Canadian County, on 3 February 1966 were very likely part of it. The
five birds seen in a field just northwest of Oklahoma City on 13 February 1972 by M. J. Rogers probably were part of it. Whether the wintering birds were the very ones that had bred there is a question that cannot be answered. On 16 December 1972, 595 birds were seen at Oklahoma City (1973, Amer. Birds, 25: 414). On 22 December 1973, 1050 birds were counted there (1974, Amer. Birds, 28: 440).

Six birds seen at Norman on 30 December 1966 (1967, Audubon Field Notes, 21: 299) may well have been wintering separately from the Oklahoma City population, though observers at Norman did not know of a blackbird roost in their area. Two birds seen on 28 December 1970 (W. J. Fox), a single male seen on 9 and 16 February 1971 (W. J. Fox, J. D. Tyler, respectively), and great numbers observed as they flew in to a roost on 12 and 21 December 1971 (J. D. Tyler, J. W. Ault, respectively) in Lawton probably were overwintering. Several birds seen on 25 February 1973 by Florel Helema in Enid may recently have returned from the south; the flock was in the large evergreen tree in which a colony had nested in 1970, 1971, and 1972; the species had not been seen in or near Enid during the preceding two months. In Norman W. D. Harden and G. M. Sutton saw many "big grackles" on 13 March 1973 in and near the cemetery in which the species had nested since about 1967, but the closest area in which the birds were known to be overwintering was in Oklahoma and Canadian counties in the vicinity of Lake Overholser. The 18 birds counted on 1 January 1973 at the Sequoyah National Wildlife Refuge in Sequoyah County, northeastern Oklahoma (1973, Amer. Birds, 27: 431) were, of course, quite separate from any population wintering in central Oklahoma. Seven male birds seen on 7 January 1975, 1 mile west of Elmer, Jackson County, southwestern Oklahoma, probably were overwintering (R. E. Morgan, J. D. Tyler).

Data now available indicate that overwintering has thus far taken place chiefly in central Oklahoma. Whether or not the data are misleading or biased as a result of there being so few observers south of Canadian and Cleveland counties, one cannot resist belief that the following are among the factors that have made this particular part of the state attractive: relatively mild winter weather as a rule; good feeding grounds in pastureland and feedlots; a good roosting place in the cattails; and the presence of great numbers of "black-birds" of other species, including the Starling (Sturnus vulgaris).

NESTING HABITS

One reason for the expansion of range reported above may well be the Great-tailed Grackle's adaptability as regards nest sites. Within the two decades just discussed, nesting in Oklahoma has taken place in a great variety of habitats. Although willows and cattails at the edges of impoundments in more or less "wild" areas seem to have been favored, junipers, arborvitae, pines,
pecans, elms, cottonwoods, bois d'arc, and other trees in urban residential areas also have been used. Where colonies have established themselves in or near heronries they have nested also in blackjack and post oaks. As foraging habitat, pastures and open fields have been preferred, but urban colonies have found food on campuses, in parks, and about human dwellings.

Precise locus of some colonies has shifted considerably since the first documented breeding in 1958. Thus, in Cleveland County, the Anderson Lake colony dwindled somewhat in 1959 even as a small colony (three pairs) nested in willows standing in a pond on the Richardson farm 2 miles east of Norman. By 1964 observers found only three or four nests at the Anderson Lake colony but a few pairs nested that year in large junipers above dry ground at a farm house about a mile south of the lake. In 1967 the Anderson Lake colony and “juniper colony” south of the lake continued to be small, but a fair-sized colony nested in arborvitae along the northwest edge of Norman. This colony continued to flourish even as a still larger colony established itself in a cemetery just northeast of Norman. By 1973 the cemetery colony had become considerably the largest in the vicinity of Norman.

At Minco (Grady County, central Oklahoma), at least one colony has bred successfully since 1961. Nesting has been irregular 3 miles north of town at the above-mentioned pond, where the water-level has fluctuated greatly, the dead cattails have been burned from time to time, and cattle have trampled the bottom repeatedly; in shade trees in town, however, at least one colony has continued to reproduce young each summer.

Great-tailed Grackles that nested in 1964 in a heronry 4 miles south of Morris (Okmulgee County, east-central Oklahoma) moved with the herons when the heronry was “shot up” by the landowner, who had stocked the ponds with fish; some of the herons and grackles established themselves in a small grove east of Morris, others in woods along the northeast edge of Boynton, in Muskogee County, about 12 miles northeast of Morris; at the Boynton heronry on 13 April 1965 several pairs of big grackles were settled for the season; herons and grackles have continued to flourish near Boynton: on 17 April 1975 about 25 grackles were perched in two big trees near the heronry (Mary P. Williams).

A fact worth noting here is that Cassidix mexicanus has not been reported from the Panhandle. The Common Grackle breeds locally throughout all three Panhandle counties, though not in large numbers. The westernmost colony has nested for years about the bridge across Carrizozo Creek (a major tributary to the Cimarron) just west of Kenton. So far as I know Cassidix mexicanus has not been observed nesting about bridges anywhere in Oklahoma.

Data thus far obtained indicate that the Great-tailed Grackle is one-brooded in Oklahoma. Failure of early nests has led, however, to some late fledging. Thus, on 7 June 1973, at Norman’s cemetery colony, W. D. Harden
and G. M. Sutton found that the young had left most of the 20 or so nests to which they climbed. They did, however, capture and band one of two barely-fledged young that they saw, and one nest held three small young. At the Bethany heronry in Oklahoma County on 20 July 1971, W. D. Harden, R. G. Lawrence, and G. M. Sutton saw many young Great-tailed Grackles, some of which appeared to have fledged recently.

DEPARTMENT OF PHARMACOLOGY, UNIVERSITY OF MISSISSIPPI, UNIVERSITY, MISSISSIPPI 38677, 1 MARCH 1975.

GENERAL NOTES

Early spring arrival date for Least Bittern.—On 9 April 1975, a pleasant day, I observed a Least Bittern (*Ixobrychus exilis*) at one of two small ponds just below the dam of Hospital Lake in the northeastern part of Norman, Cleveland County, central Oklahoma. It was walking under some small junipers lining a narrow strip of land between the ponds. When I approached — to within about ten feet — it flew to the opposite bank. When I approached again, it flew back to about the spot from which it had first flown. The date is early. According to Sutton (1967, Oklahoma birds, p. 38) the Least Bittern inhabits Oklahoma from 16 April to 30 October. Records filed at the University of Oklahoma Bird Range indicate that on 16 April 1928 one was seen at Tulsa, Tulsa County, northeastern Oklahoma (Nice, 1931, Birds of Oklahoma, p. 58); that on 17 April 1970 one was seen at the Salt Plains National Wildlife Refuge in Alfalfa County, north-central Oklahoma, by John Grula; and that on 19 April 1928 one was seen at Lake Overholser in Oklahoma City, central Oklahoma, by George B. Saunders (Nice, loc. cit.).

— Neil B. Ford, Department of Zoology, University of Oklahoma, Norman, Oklahoma 73069. 5 May 1975.

Wood Duck in Cimarron County, Oklahoma.—In mid-morning on 10 May 1973, while I was looking for birds just below the Lake Carl Etling dam in Black Mesa State Park, Cimarron County, far western Oklahoma, a medium-sized duck sprang from cattails bordering a quiet pool below the spillway, circled twice low overhead, and flew westward following the lake's north shore. It made no vocal sound. I noted that it had a crest, that there was a large whitish area about the eye, and that its upperparts were dull gray. There was no mistaking the bird: it was a hen Wood Duck (*Aix sponsa*). An hour later I flushed it again, this time from cattails along the west shore of the lake not far from a small mixed flock of Baldpates (*Mareca americana*), Northern Shovelers (*Anas clypeata*), Gadwalls (*A. strepera*), and Blue-winged Teal (*A. discors*).

This is, I believe, the first Wood Duck sighting for the Oklahoma Panhandle and it is decidedly the westernmost sighting for the state. According to data filed at the University of Oklahoma Bird Range, the westernmost Oklahoma localities from which the species has heretofore been reported are Rosston, Harper County (adult drake, UOMZ 7484, collected 5 mi. north, 3½ mi. west of town on 27 October 1973 by Laurence E. Dunn); Woodward, Woodward County, where a hen was seen several times 13 to 23 July 1905 (Nice, 1931, Birds of Oklahoma, p. 63); and Durham, Roger Mills County, where Rena Ross et al. have seen Wood Ducks occasionally in late summer and early fall (23 August to 2 September). W. E. Lewis did not mention the Wood Duck in his paper on water birds seen by him near Gate, Beaver County, at the eastern end of the Panhandle (1930, Wilson Bull., 42: 26-44). In New Mexico, where *Aix sponsa* is "rare to uncommon," no evidence of breeding has thus far been obtained (Hubbard, 1970, Check-list of the birds of New Mexico, p. 17).—Jack D. Tyler, Department of Biology, Cameron University, Lawton, Oklahoma 73501, 15 July 1974.

Nesting of American Coot in Comanche County, Oklahoma.—On 26 May 1972, at Lake Helen in Lawton, Comanche County, southwestern Oklahoma, I discovered a
pair of American Coots (*Fulica americana*) with their four young. Lake Helen is in the northeastern part of Lawton; it is bordered by one major highway on the north and another on the east; at its shallow west end there is a sizeable stand of rank cattail and a scattering of black willows (*Salix nigra*) along the shore.

When I first saw the coot family they were feeding in the water in a grassy area 7 or 8 feet out from the north shore. The chicks, which were 6 to 8 inches long, were orange-red on the bill, forehead, and lores, but there was no bright color back of the eyes or on the wings, so I judged them to be about ten days old (Bent, 1926, Bull. U.S. Natl. Mus. 135, p. 362; Gullion, 1954, Auk, 71: 392). From 26 May to 17 June I observed the family three or four times daily. By 17 June the young were about as large as their parents and they appeared to be fully fledged, though I did not see any of them flying on that date. They were dark gray above and whitish below, with dark speckling on the foreneck and breast. The bill of each was brownish black, the legs green, as in the adult. On 17 June the young seemed to be independent of their parents, though the six birds stayed fairly close together.

On checking the field notes of Arthur F. Halloran and Jack D. Tyler, I learned that in 1955 and 1971 the American Coot had been seen so late in spring in Comanche County as to suggest that it might be nesting there. It was seen on 27 May in 1955 and on 25 June in 1971. Nothing in the climatological record for the period would explain such late departure for the north.

According to Sutton (1967, Oklahoma birds, p. 166), *Fulica americana* has been known to breed in the following Oklahoma counties: Cimarron, Harper, Cleveland, Love, Ray (1973, Bull. Oklahoma Orn. Soc., 6: 21) has reported its breeding also in Lincoln County. Breeding in Comanche County has not heretofore been reported.—Cindy A. Felis, 102 Cimarron Trail, Lawton, Oklahoma 73501, 20 February 1973.

**Which subspecies of Vermilion Flycatcher inhabits Oklahoma?** On 27 April 1968, along the Cimarron River 9 miles east of Kenton, Cimarron County, far western Oklahoma, David F. Parmelee collected the first fully adult male Vermilion Flycatcher (*Pyrocephalus rubinus*) for the state. The specimen, beautifully mounted by Richard H. Schmidt of Kansas State College in Emporia, Kansas, was presented to the University of Oklahoma by Dr. Parmelee. It represents the geographical race *P. r. flammeus* (type from Brawley, Imperial County, southern California). In identifying it subspecifically I borrowed from the Carnegie Museum in Pittsburgh — through the courtesy of Kenneth C. Parkes — a considerable series of *P. r. flammeus* and *P. r. mexicanus*, the former from California, New Mexico, and Arizona, the latter from Mexico (Nuevo León, the State of Mexico, and Jalisco) and southern Texas. Five adult male *mexicanus* from this series measured wing 82-84 mm. (av. 82.4), tail 57-61 (av. 59.6), six *flammeus* wing 79-81.5 (av. 80.1), tail 57.5-60 (av. 58.8), thus confirming the statement in the original description of *flammeus* that that race is "slightly smaller" than *mexicanus* (van Rossem, 1934, Trans. San Diego Soc. Nat. Hist., 7: 353). According to this original description, adult male *flammeus* averages "more orange (less crimson) red" on the crown and underparts, a character obvious in the Oklahoma specimen when it is compared directly with adult male *mexicanus*. A subadult male bird collected by Dr. Parmelee 9 miles east of Kenton on 26 April 1968 (UOMZ 6324, wing 79, tail 56), a subadult male taken by John A. Wiens 4 miles southeast of Kenton on 1 July 1965 (UOMZ 5738, wing 78, tail 59), and an adult female taken by me 14 miles northwest of Boise City, Cimarron County, Oklahoma on 27 April 1969 (UOMZ 6550, wing 75, tail 58), probably represent *flammeus* also, though the characters of that race — "more grayish (less blackish) slate" on the back, wings, and tail, "females with the underparts less conspicuously streaked" — certainly are not obvious in the three specimens. — George M. Sutton, Stovall Museum of Science and History, University of Oklahoma, Norman, Oklahoma 73069, 7 February 1971.

**Early nesting of Barn Swallow in Oklahoma.**—On 4 April 1973, in a pump
house of the pollution control facility at Fort Sill, Comanche County, southwestern Oklahoma, I flushed a Barn Swallow (Hirundo rustica) from a nest containing five eggs. I had no way of knowing how long the eggs had been incubated, but they appeared to be fresh. The nest was attached to a concrete roof beam. The birds must have entered and left the building while the door was open, for there was no other way for them to get in and out. Someone closed the door on 6 April. How long it stayed closed I do not know, but on 9 April, at noon, I found on the floor a dead female bird, who might have killed herself trying to fly through the closed door’s glass window, though her weight (11 grams) suggested that she had died from lack of water (two female specimens in the University of Oklahoma bird collection weighed 16.4 grams and 17.9 grams).

The egg-date is exceptionally early. Assuming that one egg was laid per day, the first must have been laid no later than 31 March. The earliest date thus far reported for a nest with eggs in Oklahoma is 18 April 1965, when G. W. Dickson found two eggs in a “rebuilt old nest” in Oklahoma County; that nest contained a full clutch of five on 21 April (Sutton, 1967, Oklahoma birds, p. 360).

Fort Sill’s pollution control facility provides an attractive habitat for Barn Swallows. At the several concrete settling tanks many kinds of flying insects — important swallow food — reproduce and the buildings furnish excellent nest sites.—Louis E. McGee, 1703 N. 43rd St., Lawton, Oklahoma 73501, 11 June 1973.

Wood Thrush in Comanche County, Oklahoma—On 10 May 1972 Audrey G. Halloran and I watched a Wood Thrush (Hylocichla mustelina) for over an hour as it searched for food among dead leaves beneath shrubbery in her backyard along Wolf Creek in a residential part of Lawton, Comanche County, southwestern Oklahoma. The bold black spotting on the bird’s underparts was easy to see.

On 15 October that same year Mrs. Halloran again saw a Wood Thrush in her yard. The following day I saw one in our backyard (possibly the same bird, since our yard is only about 250 feet north of the Halloran yard). This time the bird fed busily on pyracantha berries and bathed in a birdbath under a large pyracantha bush. On 17 October I briefly saw the bird again in our backyard.

According to the summary of records at the University of Oklahoma Bird Range, the Wood Thrush has not heretofore been reported from Comanche County. The fall sighting reported above is noteworthy, for of the eight fall sightings on record for the state, all are for northeastern Oklahoma — seven for Tulsa County, one for Washington County. The species is “rare along the west edge of its range”; the westernmost counties from which it has heretofore been reported are Cimarron, Major, Oklahoma, Caddo, and Murray (Sutton, 1967, Oklahoma birds, p. 432).—Janet M. McGee, 1703 N. 43rd St., Lawton, Oklahoma 73501, 15 October 1973.

Virginia’s Warbler in Texas County, Oklahoma.—On 15 May 1973, at about 1400 (day warm and clear), I observed a Virginia’s Warbler (Vermivora virginiae) in a small willow tree along Coldwater Creek 2½ miles west of Hardesty, Texas County, in the Oklahoma Panhandle. In the same tree were a Swainson’s Thrush (Catharus ustulatus) and an Empidonax flycatcher. Cottonwoods and willows were the principal trees lining the stream, in which a fair amount of water was flowing. Except for one sighting in Grant County, north-central Oklahoma — two birds seen in or near Wakita on 25 May 1956 by L. L. Byfield, his wife Ann, and Marjorie Stuart (1956, Audubon Field Notes, 10: 344) — Virginia’s Warbler has heretofore been reported only from Cimarron County. It has been seen there several times in spring, twice in fall (Sutton, 1967, Oklahoma birds, pp. 496-7).—Jack D. Tyler, Department of Biology, Cameron College, Lawton, Oklahoma 73501, 25 October 1973.

FROM THE EDITOR: The editor wishes to thank the following for their help with preparing for publication W. Marvin Davis a Great-tailed Grackle paper: Louis E. McGee, John G. Newell, Mary P. Williams, John S. Tomer, and Mitchell Coddin. Presenting the paper without at least one map may surprise, and perhaps disappoint, some readers, but we decided that what might appear from a map to be proof of spread eastward and westward from south-central Oklahoma might misrepresent badly what actually happened. In other words, populations first observed in Greer County in 1971 and in McCurtain County in 1972 might well have moved into these “new” areas not from south-central Oklahoma but from adjacent areas in Texas.

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