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Birds of the Great Plains: Family Tyrannidae (Tyrant Flycatchers)

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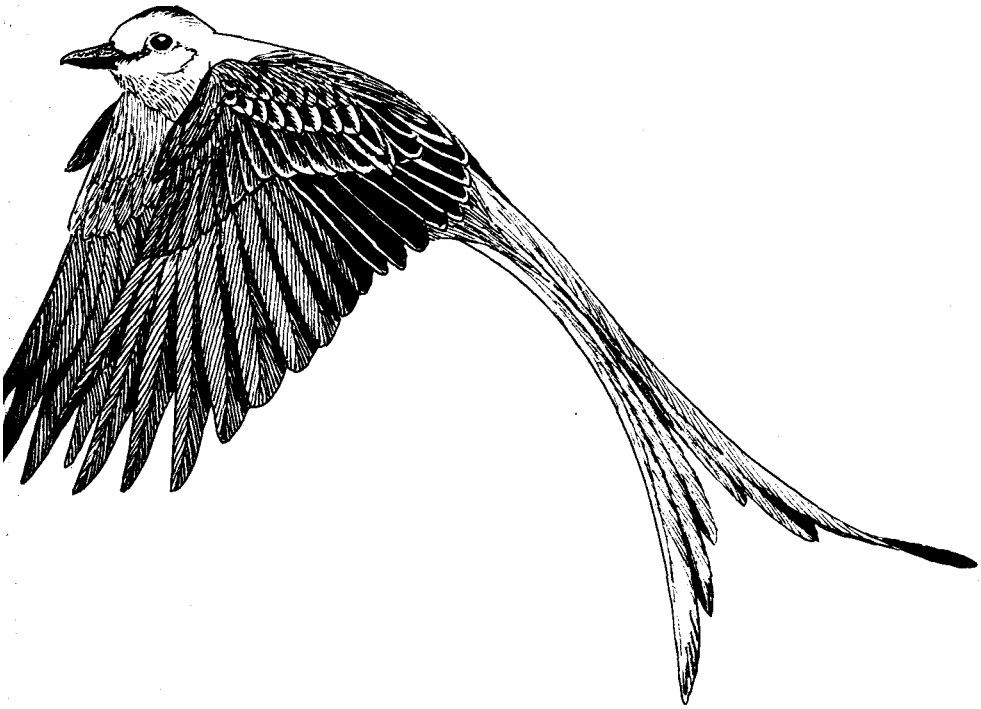
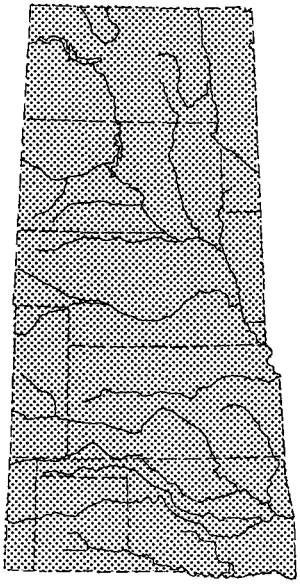
FAMILY TYRANNIDAE (TYRANT FLYCATCHERS)



Scissor-tailed Flycatcher

Eastern Kingbird
Tyrannus tyrannus



Breeding Status: A pandemic breeder throughout the region, generally more common in the eastern portion than in the west.

Breeding Habitat: The species frequents open areas having scattered trees or tall shrubs, and with forest edges or hedgerows. It is usually found in forests where the canopy level is uneven, allowing vantage points for foraging.

Nest Location: Nests are on tree branches well away from the main trunk or at times on shrubs or even manmade structures. They are usually less than 20 feet above the ground and are relatively bulky cups of herbaceous plant materials, lined with finer materials such as grasses.

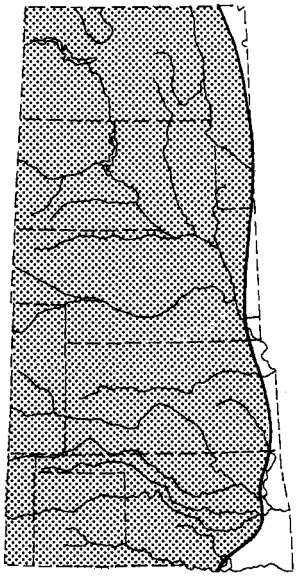
Clutch Size and Incubation Period: From 3 to 5 eggs (21 North Dakota nests averaged 3.9), white with large dark brownish spots. Probably single-brooded.

Time of Breeding: North Dakota egg records are from June 6 to July 11, and nestlings have been reported from July 6 to early September. Kansas egg dates are from May 11 to July 20, with about 70 percent of the eggs laid in June. Oklahoma nest-building or egg dates are from May 10 to July 5, and unfledged young have been seen as late as July 21.

Breeding Biology: Eastern kingbirds arrive on their breeding grounds when insect populations begin to become noticeable and soon become extremely conspicuous as the males begin territorial behavior and associated courtship. Aerial displays are common then, with the bird flying erratically in a series of swoops and dives not far above the ground and uttering harsh screams. Chases and fights between birds on adjacent territories are also prevalent at this time. Kingbirds have a strong tendency to return to the same nesting territory in subsequent years, although the specific nest site varies. Males help build the nest, but the female typically does the incubating. After the eggs hatch both sexes are kept constantly busy bringing food to the young, the female generally being more active in feeding and brooding than her mate. The young remain in the nest for approximately 2 weeks. Thereafter they remain as a group, often on a wire or an exposed tree branch, waiting for their parents to come and feed them. The young begin to catch flies after they are about 8 days out of the nest, and they continue to improve in flying ability for the next month. They are not fed by the adults beyond about 35 days after fledging.

Suggested Reading: Bent 1942; Morehouse and Brewer 1968.

Western Kingbird
Tyrannus verticalis



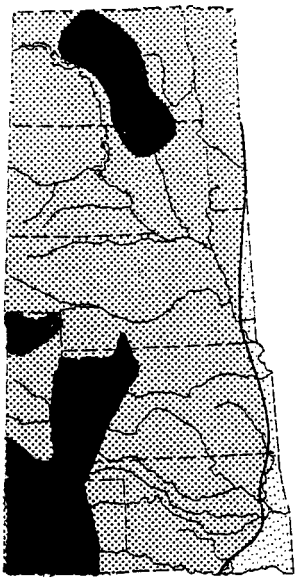
Breeding Status: Breeds throughout nearly the entire region, with the possible exceptions of extreme eastern Oklahoma and Kansas, northwestern Missouri, and west-central portions of Iowa and Minnesota.

Breeding Habitat: This species is strongly associated with edge habitats, such as shelterbelts, hedgerows, orchards, woodland margins, tree-lined residential districts, and the like.

Nest Location: Nests are in a variety of trees or tall shrubs and on artificial structures. When available, trees are chosen over small plant species, but nests usually are less than 50 feet above the ground. They often are on the lower dead branches of tall cottonwoods or elms, where good vantage points are available. In size and materials they are much like those of the eastern kingbird.

Clutch Size and Incubation Period: From 3 to 6 eggs (averaging about 4.5 in North Dakota and Kansas). The eggs closely resemble those of the eastern kingbird. The incubation period has been variously estimated as 12–14 days. Normally single-brooded, but records of second broods exist.

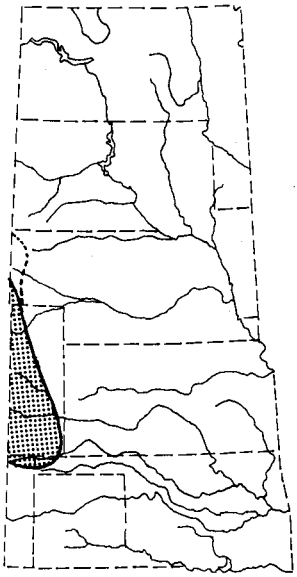
Time of Breeding: North Dakota egg dates are from June 12 to July 16, while those from Kansas extend from May 11 to July 31, with a peak in mid-June, more than 70 percent of all clutches being laid in June. Dates of eggs or newly hatched young in Oklahoma are from June 1 to July 5, and Texas egg dates range from May 16 to July 12.



Breeding Biology: Like the eastern kingbird, this species is highly territorial and generally is extremely intolerant of larger birds such as crows and hawks in the vicinity of its nest. The birds are also at least as noisy as the eastern kingbird, and during the early stages of territorial establishment and pair-formation they are particularly conspicuous for their calling and singing. Yet, in spite of their overt aggressiveness, there are reported cases of several pairs occupying the same tree or sharing a small grove for nesting. Little is known of their nest-building behavior, but a traditional return to a previous year's nesting territory is evident, as in eastern kingbirds. The female does most of the incubating, but males have been seen on the nest as well. Likewise, both parents actively feed the young, which remain in the nest for about 2 weeks. In one observed case in Oklahoma, a pair began a new nest only 4 days after its first brood fledged, but presumably the young birds remain at least partially dependent on their parents for some weeks after fledging.

Suggested Reading: Bent 1942; Hespenheide 1964.

Cassin Kingbird
Tyrannus vociferans

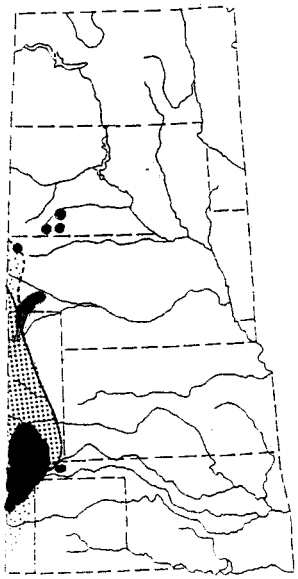


Breeding Status: Probably breeds from the western panhandle of Nebraska (no definite nesting records, but see *Nebraska Bird Review* 39:72) southward through eastern Colorado (records for the plains area are also lacking) to the Cimarron Valley (nesting records for Cimarron County, Oklahoma, and Union County, New Mexico, but not for Kansas, where sporadic breeding is probable).

Breeding Habitat: The species is associated with open country such as plains and semideserts with scattered trees and also with open woodlands. It is more western and montane-adapted than the western kingbird, but widely overlaps with it.

Nest Location: Trees, bushes, and posts are reportedly used for nest sites, but nearly all nests are in fairly tall trees at substantial heights (20–70 feet). In one Arizona study, 35 of 44 nests were in sycamores, and none were in shrubs or yucca, where western kingbirds were found to nest frequently. The nest is constructed much like those of the eastern and western kingbirds but is slightly larger and bulkier.

Clutch Size and Incubation Period: From 2 to 5 eggs, usually 3 or 4. The eggs are white, with a wreath of brown spots around the larger end. The incubation period is probably between 12 and 14 days. Reportedly double-brooded at southern end of range.

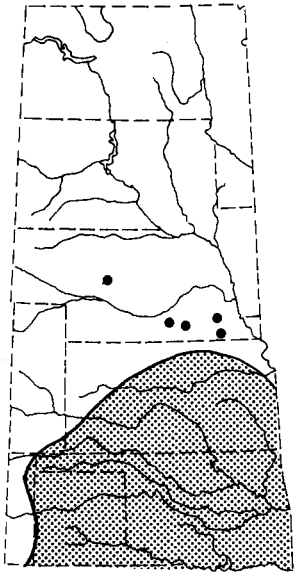


Time of Breeding: Few dates are available for this region, but in Oklahoma nest-building has been seen in early June and a clutch in late June. In western Colorado the breeding season is said to be from mid-May to the first of July.

Breeding Biology: In a study area in Arizona, where both western and Cassin kingbirds occur together, it was found that the greatest abundance of western kingbirds was in desertlike habitats, while this species was most prevalent in transitional areas between desert and pine or oak woodlands. Evidently the Cassin kingbird will nest in almost any habitat, provided tall trees are available for nesting sites. Apparently there is considerable intolerance between these species, and yet their nests are at times placed in close proximity. Little has been written on the role of the sexes in breeding, but apparently the female does most if not all of the incubating. Both sexes do care for and feed the young, which remain on the nest for approximately 2 weeks. The young follow their parents for some time thereafter, until they have perfected their own insect-catching abilities.

Suggested Reading: Bent 1942; Hespenheide 1964.

Scissor-tailed Flycatcher
Muscivora forficata

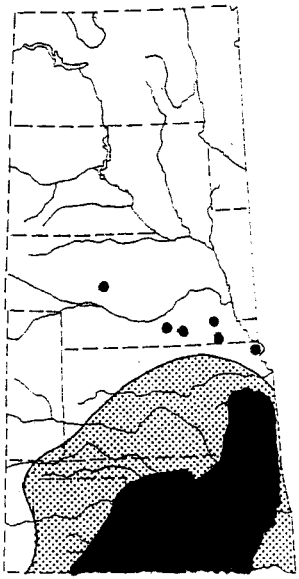


Breeding Status: Breeds sporadically in southeastern Nebraska (records for Adams, Lancaster, Logan, Gage, and Clay counties) and regularly from north-central Kansas southward and westward to extreme southeastern Colorado (Baca County), the panhandles of Oklahoma and Texas, and extreme northeastern New Mexico (Union County).

Breeding Habitat: The species breeds in open to semiopen habitats with a scattering of trees or other elevated sites such as buildings, or in wooded areas with openings.

Nest Location: Nests are typically in cottonwoods, elms, or other hardwood species, in exposed sites between 5 and 50 feet above the ground. Isolated trees are preferred to those growing in groves or heavier cover. Windmills, the crossbars of utility poles, and buildings are sometimes also used. The nests are relatively variable in size and poorly constructed, consisting of a shallow cup of twigs and weeds with a lining of softer materials.

Clutch Size and Incubation Period: From 2 to 6 eggs (17 Kansas nests averaged 3.2), white with variable brown spotting. The incubation period is 12–13 days. Frequently double-brooded, with late clutches distinctly smaller than earlier ones.

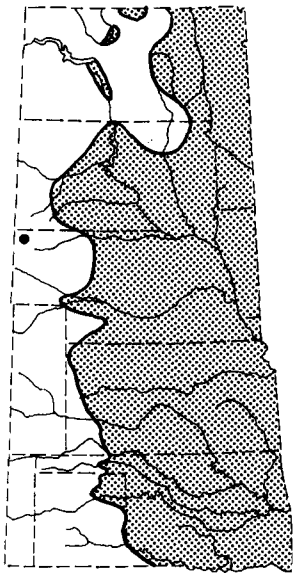


Time of Breeding: Kansas egg records are from May 21 to July 10, with a peak in late June. Oklahoma egg records extend from May 22 to July 28, and those from Texas are from March 31 to August 10.

Breeding Biology: This species is highly territorial, although for a time after spring arrival the birds remain in small flocks that roost together. Females apparently take the initiative in choosing nest territories, which center on a suitable nesting tree and include a radius of 30–40 yards around it. The female also apparently picks the nest site, since she does all the nest construction while the male watches from nearby. She gathers all the nest materials, though the male guards the nest site in her absence. The female likewise does all the incubating and is more active than the male in providing food for the young, and she apparently cares for the nestlings at night. Males congregate for roosting, but they appear at the nest shortly after sunrise to begin feeding the offspring. Besides males, unsuccessful females and unmated birds join in these roosting congregations, and shortly after fledging the young birds also begin to join these roosting groups, which may number as many as 250 birds. The nestling period is about 14 days.

Suggested Reading: Fitch 1950; Bent 1942.

Great Crested Flycatcher (Crested Flycatcher)
Myiarchus crinitus



Breeding Status: Breeds locally from the eastern half of North Dakota and western Minnesota southward through the eastern portions of South Dakota and Nebraska (west to Sioux and Deuel counties), probably extreme eastern Colorado (Sedgwick and Yuma Counties), nearly all of Kansas except for Morton County, Oklahoma west at least to Beaver County, and the eastern panhandle of Texas. Also reported to breed in Union County, New Mexico.

Breeding Habitat: Breeds in fairly extensive hardwood forests, especially those with fairly open canopies. Limited to river valleys at the western edge of its range.

Nest Location: Nests are in woodpecker holes or natural cavities of trees, usually between 10 and 20 feet above the ground. The cavity is filled with a variety of materials, often including a castoff snakeskin or similar material such as plastic or cellophane. Artificial structures such as birdhouses, drain spouts, and other hollows may also be used, with little preference shown for the shape of the opening or the cavity expanse, which gradually becomes filled in.

Clutch Size and Incubation Period: From 4 to 8 eggs, usually 5 or 6. The eggs are yellowish with extensive streaks, blotches, or spots of brown or purple. The incubation period is 13–15 days. Single-brooded.

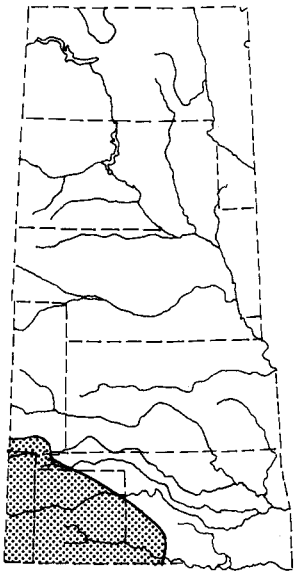
Time of Breeding: Minnesota egg records are from June 4 to June 26, with dependent young seen as late as August 3. Kansas records are from May 11 to July 10, with a peak in early June. Oklahoma records of eggs extend from May 18 to June 12, and Texas records are from April 30 to June 8.

Breeding Biology: Shortly after returning to the nesting area, males become highly territorial, and a good deal of calling and chasing by males is evident. At least in some instances pairs of the preceding year are reformed; one banded pair nested in the same box for three consecutive years. The pair spends a good deal of time in making their chosen cavity suitable for nesting, nearly filling it with whatever materials are readily available. There is no special reason for using snakeskins to line the nest beyond their being soft and pliable. The female does most or all of the incubating, with the male in close attendance. During feeding the pair often return to the nest together, one waiting outside the cavity until the other has passed on its supply of food, primarily insect larvae, to the young. Estimates of the nestling period vary from 12 to 21 days, with two estimates of 18 days. The family remains

together for some time after leaving the nest, while the young birds gradually learn to forage for themselves.

Suggested Reading: Mousley 1934; Bent 1942.

Ash-throated Flycatcher
Myiarchus cinerascens



Breeding Status: Breeds in eastern New Mexico (records for De Baca and Quay counties) eastward across the Texas panhandle to southwestern Oklahoma (Harmon, Tillman, and Comanche counties, also Cimarron and possibly Beaver counties in the panhandle). Reportedly also breeds along the Cimarron Valley of southeastern Colorado.

Breeding Habitat: The species is generally associated with mesquite and cactus deserts, and open piñon-juniper woodlands, but in northern Texas and Oklahoma it is more typical of open stands of cottonwoods, willows, or mesquites, or areas near partially wooded stream courses or dry gulches.

Nest Location: Nests are in natural cavities of trees or stumps, in woodpecker holes, or sometimes in old nests of the cactus wren. The cavity is filled and lined with a variety of materials, often including hair and sometimes including snakeskins. It is usually less than 20 feet above the ground.

Clutch Size and Incubation Period: From 3 to 7 eggs, usually 4. The eggs are buff to creamy with brownish to lavender spots, lines, and streaks. The incubation period is probably 15 days. Apparently single-brooded.

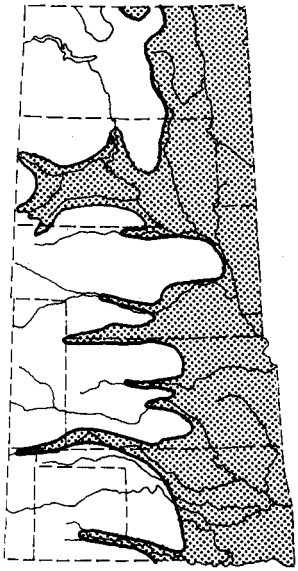
Time of Breeding: Breeding records in Oklahoma range from June 4 (eggs) to August 7 (fledged but dependent young). In Texas, egg records are from April 12 to June 17, and young in the nest have been reported as late as July 14.

Breeding Biology: This desert-adapted species has been studied rather little, but in many respects it resembles the great crested flycatcher in its ecology and behavior. Its call notes are closely similar to those of that species, and two of its most diagnostic calls are *ha-whip* and *ha-wheer*, given with a vertical tail-flick. Birds develop these characteristic calls by the time they fledge at about 16 days of age, even when they are reared in isolation, indicating their innate basis. During nest-building the female gathers the materials while the male sings and guards the nesting area. Both parents feed the young, mostly on the soft parts of insects, which at first are regurgitated but later are fed to the young birds directly. For some time after the young birds leave

the nest they remain close to their parents, and the adults help train them to capture live prey by releasing slightly injured insects directly in front of them.

Suggested Reading: Bent 1942; Lanyon 1961.

Eastern Phoebe
Sayornis phoebe

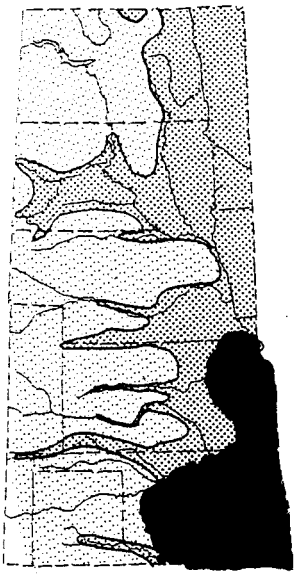


Breeding Status: Breeds from the eastern half of North Dakota and western Minnesota southward through most of South Dakota as well as the Black Hills, eastern Nebraska (west locally at least to Sioux and Lincoln counties), nearly all of Kansas (to Cheyenne and at least Comanche counties), southeastern Colorado (Baca County), northeastern New Mexico (Union County), the Black Mesa area of Oklahoma and most of eastern Oklahoma extending locally along the Red River into the Texas panhandle (Brisco County).

Breeding Habitat: The species frequents woodland edges or wooded ravines near water, cliffs, and habitats providing natural or artificial ledges for nesting, such as bridges and farm buildings. It is usually found near lakes or streams, in partially wooded areas.

Nest Location: Nests are most often associated with bridges over rivers or with other manmade structures near lakes, but ledges on rock bluffs, ravines, and similar natural sites are also used. The nest is constructed of mud and vegetation with a lining of hair and fine grasses.

Clutch Size and Incubation Period: From 3 to 6 white or sparsely spotted white eggs (58 Kansas clutches averaged 4.2). The incubation period is 15–16 days. Usually double-brooded, with second clutches averaging smaller than initial clutches. Frequently parasitized by cowbirds.



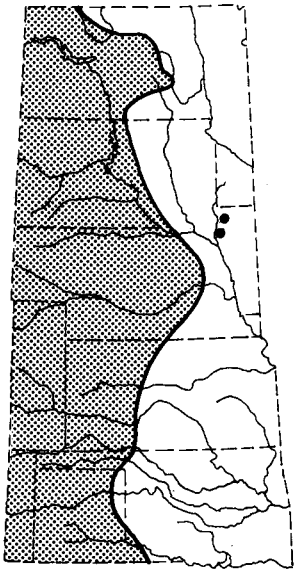
Time of Breeding: North Dakota nest-building or egg records are from May 7 to June 21. Kansas egg dates extend from March 21 to July 20, and Oklahoma egg dates range from March 28 to June 28.

Breeding Biology: This is one of the earliest of the flycatchers to arrive in spring. Males typically precede the females, immediately establishing and patrolling territories. Females soon follow, and pairs are formed when the female enters a male's territory and is accepted. Males soon begin to follow their mates closely and often attempt to mount them, but they are frequently rebuffed. The female builds the nest alone, while the male perches nearby

and repeatedly utters the familiar *phoebe* notes. These actually consist of two different song types that have rather different communication functions. The female does all the incubating, although the male helps feed the young. They fledge at about 15-16 days, after which a second clutch may be started. At this time they may use the same nest, but they often build a new one or may superimpose the new nest over the initial one.

Suggested Reading: Smith 1969; Bent 1942.

Say Phoebe
Sayornis saya



Breeding Status: Breeds from the east-central portions of North Dakota south through eastern South Dakota, possibly including Rock County, Minnesota (*Loon* 47:13), to extreme northwestern Iowa (Sioux and Plymouth counties), central Nebraska (east to Cuming, York, and Clay counties), western Kansas (east to at least Cloud County), eastern Colorado and New Mexico, and extreme western Oklahoma (Cimarron County). There are no breeding records for the Texas panhandle (the nearest being from Wilbarger County), where they apparently are local breeders.

Breeding Habitat: The Say phoebe is associated with open and arid regions, especially rocky habitats that provide nesting sites. Sunny canyons, mountain meadows, and open areas near buildings are all used. Unlike the eastern phoebe, this species is independent of surface water.

Nest Location: Nests are on rocky ledges, on horizontal ledges under bridges or in other manmade structures, or even built on old nests of barn or cliff swallows. Caves or abandoned mine shafts are also frequently used. The nest is much like that of the eastern phoebe.

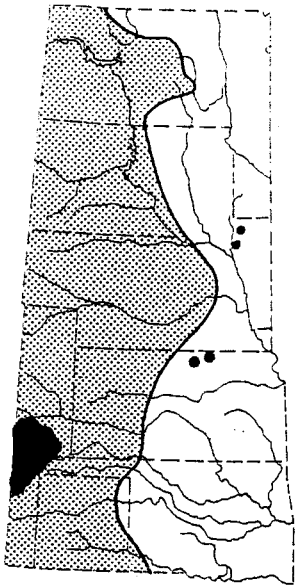
Clutch Size and Incubation Period: From 2 to 7 eggs, usually 4 or 5, pure white or with a few small brownish spots. The incubation period is about 14 days. Double-brooded over most of range; sometimes three broods are raised.

Time of Breeding: Kansas egg records are from May 1 to July 20, with a peak of laying in late May. Texas egg records are from April 7 to June 27, and dependent young have been seen as late as August 25.

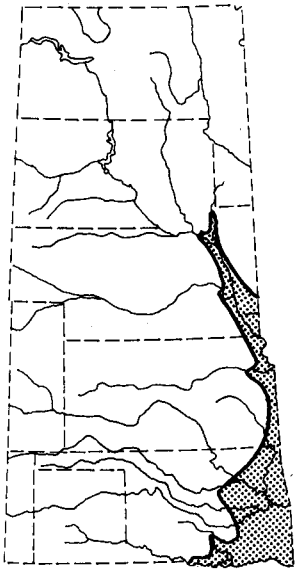
Breeding Biology: Male phoebes arrive on the nesting grounds before females, and when the females return pairs form or reform rather rapidly. Nest-building or the repair of a previous nest may begin only a week or two after the birds arrive, and is presumably

done by the females. Often the same nest is used in subsequent years or for successive clutches, and at favored nest sites the loss of one or both members of a pair brings a rapid replacement. Males do not participate in incubation but remain nearby on a convenient lookout post. However, the male guards the nest and feeds the female, as well as feeding the young virtually alone during the first week or so of their lives. When they are ready to leave the nest at about 2 weeks of age the male takes over and teaches them to capture insects, while the female prepares to produce a second clutch of eggs. Apparently she assumes the entire job of feeding herself and her second clutch, although reportedly the male may again appear to take care of the brood when it fledges, freeing the female for a possible third brood.

Suggested Reading: Schukman 1974; Ohlendorf 1976.



Acadian Flycatcher
Empidonax virescens



Breeding Status: Breeds locally in the Missouri Valley from extreme southeastern South Dakota (no record since 1921) southward through Nebraska, Iowa, northwestern Missouri, eastern Kansas, and eastern Oklahoma, west to Payne and Murray counties.

Breeding Habitat: The species breeds in shady and humid river-bottom forests, forested swamps, and wooded uplands.

Nest Location: Nests are on forks of horizontal branches well away from the main trunk of a tree; lower branches of beeches and dogwoods are favored sites. They are often situated over water and usually are only 10–20 feet above the ground or water. The nest is a frail and rather shallow cup of plant stems and fibers, loosely woven and airy in appearance. Open space is characteristic below the nest, so that the birds can approach it easily.

Clutch Size and Incubation Period: From 2 to 4 eggs, usually 3; the eggs are white to buffy with sparse brown spotting. The incubation period is 14–15 days. Frequently double-brooded, and a persistent renester.

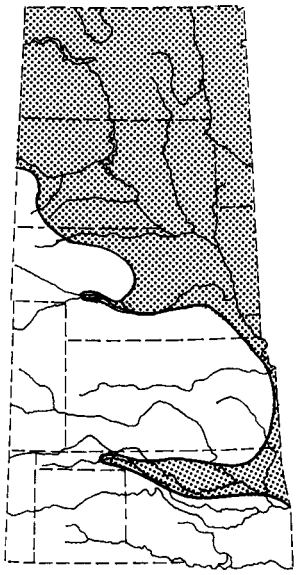
Time of Breeding: Kansas breeding records are sparse but suggest that most eggs are laid in late May or early June. Oklahoma egg dates are from May 23 to June 18, and brooding or incubating adults have been seen as late as July 16.

Breeding Biology: Males take up territories immediately upon arriving at their nesting grounds, and most territories are occu-

pied within a week. Territories average about 2 acres and are advertised by a characteristic *tee-chup* song repeated several times a minute. Evidently pair bonds are quickly formed after the females arrive, since they often begin depositing eggs within 10 days of their arrival. The female searches for suitable nest sites and may test a number of forks for "fit" while the male watches nearby. Only the female constructs the nest, which may take from 6 to 9 days to make ready for eggs, but at least at times the birds simply repair a nest of the past year. Only the females incubate, but apparently they are not fed by the males, which periodically visit the nest. Cowbird parasitism is prevalent in some areas and affects nesting success. The young have a nestling period of 13-14 days, and both parents feed them about equally. However, a female may alternately feed her first brood and work on the construction of a second nest. Likewise, some males have been known to father two broods and to feed both simultaneously, an unusual divergence from monogamy in this group of birds. Besides second clutches, renesting is frequent, and in one study five nestings were attempted in a single season.

Suggested Reading: Mumford 1964; Bent 1942.

Willow Flycatcher (Traill Flycatcher)
Empidonax traillii



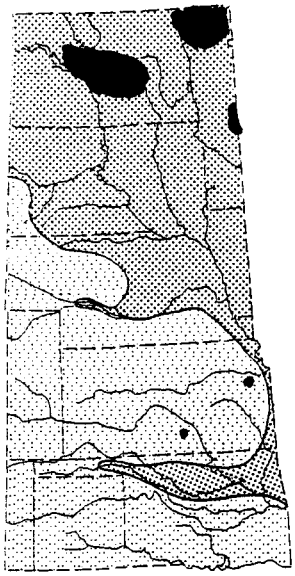
Breeding Status: Breeds in suitable habitats throughout North Dakota and western Minnesota, southward through most of South Dakota and western Iowa, the major river valleys of Nebraska (west at least to Cherry, Thomas, and Keith counties), northeastern Kansas (Doniphan, Douglas, Jefferson, and Wyandotte counties, and probably others), and eastern to central Oklahoma (west locally to Alfalfa County and perhaps Beaver County).

Breeding Habitat: Edge habitats that include thickets or groves of small trees and shrubs surrounded by grasslands are optimum, as are the edges of gallery forests along rivers or streams.

Nest Location: Nests are usually in horizontal forks or upright crotches of shrubs or small trees, usually between 3 and 15 feet above the ground and averaging about 4-6 feet. The nest is a small, compact cup of weeds and fibrous materials lined with cottony or silky fibers. Nests are placed at the outer edge of a shrub or thicket so they can be easily approached.

Clutch Size and Incubation Period: From 2 to 5 creamy eggs (22 Kansas clutches averaged 3.4), with variable-sized spots and blotches of brown. The incubation period is 12-15 days. Single-brooded, but known to renest at least twice after clutch loss.

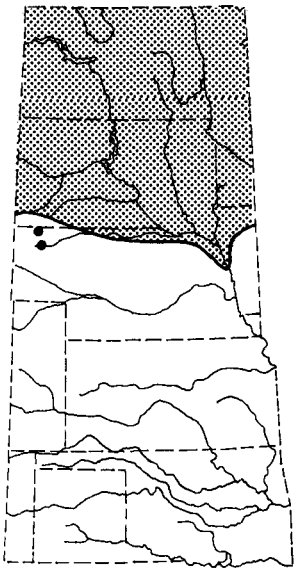
Time of Breeding: North Dakota egg dates are from July 2 to July 17, and dependent young have been seen as late as August 8. Kansas egg dates are from May 21 to July 10, with a peak in early June. In Oklahoma, eggs have been seen from May 26 to June 25.



Breeding Biology: Recent studies have suggested that this "species" really includes two species, although in this circumscribed region the breeding birds are all likely to be of the willow or *fitz-bew* song type, with the *fee-bee-o* type possibly encountered only in the extreme northeastern areas of boreal forest such as Itasca Park. This account is based on the assumption of this identification. In southern Michigan males arrive at the nesting areas somewhat before females and begin to establish territories that average about 2 acres, always including shrubs and small trees as well as clearings. Water is present either on the territory or very close to it. Birds usually sing from the highest point on the territory, up to 30 songs a minute. Nests are built by females, usually in upright crotches of shrubs that the returning bird can fly to directly. Probably the male's role in nesting is the same as that indicated for the Acadian flycatcher, since only the female is known to incubate. The young are fledged in 12-16 days, and they remain in their parents' territory until fall. They continue to beg for food until they are about 24-25 days old, when they have become fairly adept at catching insects.

Suggested Reading: Walkinshaw 1966; Holcomb 1972.

Least Flycatcher
Empidonax minimus

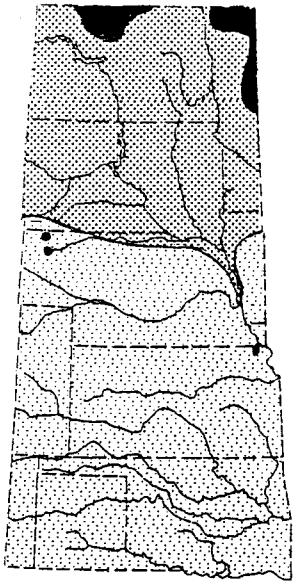


Breeding Status: Breeds locally throughout North Dakota and western Minnesota, southward into South Dakota and rarely northwestern Iowa (Emmet County). There are no recent breeding records for Nebraska, but there are early reports of breeding for Omaha and Dakota City, and pairs have been seen on territories in Brown County (*Nebraska Bird Review* 33:2). Farther south, summering birds have been seen in Kansas, though no breeding records exist, and there is one dubious breeding record for Oklahoma.

Breeding Habitat: Favored habitats include floodplain forests in prairie areas, scattered grovelands on the prairies, wooded margins of lakes, shelterbelts, and urban parks or gardens.

Nest Location: Nests are in upright crotches or on horizontal forks of deciduous or coniferous trees, usually saplings or small trees. They range in height from 2 to 60 feet but usually are only about 5-20 feet above the ground, at the edge of a clearing. The

nest is a compact structure with a deep cup, lined with plant down, hair, or other soft materials.

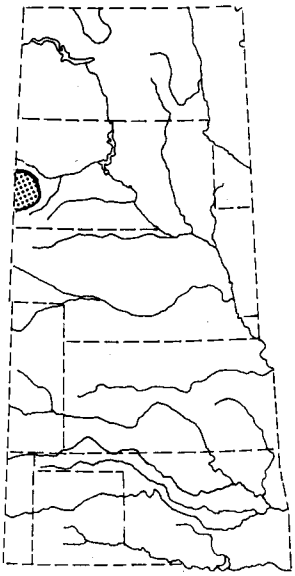


Clutch Size and Incubation Period: From 3 to 6 white eggs, usually 4. The incubation period is about 14 days. Single-brooded, but possibly two broods in southern parts of the range.

Time of Breeding: North Dakota egg dates are from June 13 to June 29. In Minnesota, nests with eggs have been seen from late May to July 12.

Breeding Biology: Shortly after returning to their nesting grounds, male least flycatchers establish breeding territories that are surprisingly small (averaging .18 acres in one study) and that usually but not always include exclusive foraging areas as well as nest sites; sometimes neutral or communal foraging sites are shared. Territories are advertised by the males' songs and are defended primarily by males. Females defend only a small area around the nest, and nest-building is done by the female. The female also does all the incubating and brooding, though the male remains near the nest throughout the entire period, occasionally feeding the female. He also begins to feed the young when they hatch and at least initially provides most of the food. The young birds leave the nest at an age of 13–15 days and may leave the territory in a few days or remain within it for up to 13 days, but they usually do not become independent of their parents until about 3 weeks of age. There seems to be no good evidence that second nestings are typical of this species, even as far south as Virginia.

Suggested Reading: Davis 1959; Nice and Collias 1961.



Dusky Flycatcher
Empidonax oberholseri

Breeding Status: Apparently confined as a breeding species to the Black Hills of South Dakota, where it is at least locally common (Spearfish Canyon).

Breeding Habitat: In the Black Hills the species is associated with deciduous shrubbery, aspen groves, and open deciduous woods. Brushy, logged-over slopes are favored in Montana.

Nest Location: Nests in the Black Hills have been found in deciduous shrubs or trees, 3–8 feet above the ground, and often in small birches. In California, studies suggest an average nest height of only about 3 feet, in shrubs or trees 3–40 feet high. Nests are usually built on upright or pendant twigs or in crotches. Black

Hills nests resemble those of the least flycatcher but are bulkier and lack the usual downlike lining common to that species.

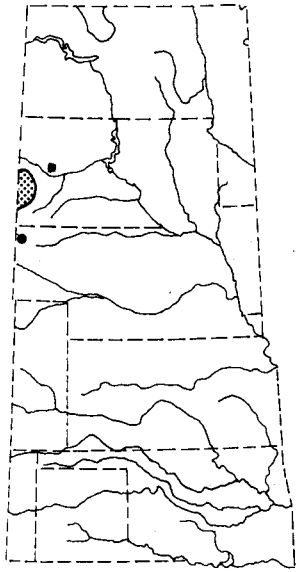
Clutch Size and Incubation Period: From 2 to 4 white eggs, infrequently with brown spotting. The incubation period is about 15 days. Not reported to be double-brooded.

Time of Breeding: The breeding season in the Black Hills is probably June and July. Egg records are from June 13 to July 1, and fledged but dependent young have been seen as late as July 22.

Breeding Biology: Dusky flycatchers closely resemble other small flycatchers such as willow flycatchers and western flycatchers, and in the Black Hills they occupy drier habitats than the western flycatcher. The dusky flycatcher has a three-syllable territorial advertisement sounding like *prillit, prrddrt, pseet*, with the second syllable low and burred. Territories are marked by this song, by pursuit flights, and by trill calls, the last given as the male perches above the female. Trill-calling plays an important role in pair-formation. In Montana the nests are typically built in crotches of small bushes, and the eggs are laid at the rate of one a day. Only the female incubates, starting incubation after the second egg is laid. The eggs hatch over a period of 2-3 days, and both sexes feed the young, although only the female broods. The nestling period is 15-17 days.

Suggested Reading: Bent 1942; Sedgwick 1975.

Western Flycatcher
Empidonax difficilis



Breeding Status: Limited as a regular breeder to the Black Hills of South Dakota, where it is a common nester. Probably also occurs regularly in Nebraska's Pine Ridge area, but there is only one state breeding record for Sioux County (*Nebraska Bird Review* 43:18).

Breeding Habitat: In the Black Hills this species occurs in hollows, canyons, and sometimes also on mountain slopes where coniferous or mixed forest provides shade and usually where there are streams or other moist habitats.

Nest Location: Most Black Hills nests have been found on ledges or crevices of canyon walls, often concealed by ferns or clumps of mosses. Tree nests are typically supported from below and from the rear, either in a crotch or on a limb projecting far from a main trunk. They are constructed of a variety of materials, but

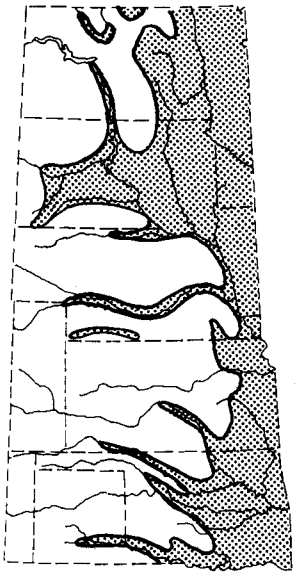
they often contain moss and are almost invariably lined with fine, dry grasses.

Clutch Size and Incubation Period: From 3 to 5 white eggs, spotted or blotched with browns and purples. The incubation period is 14-15 days. Sometimes double-brooded.

Time of Breeding: Breeding in the Black Hills occurs during June and July. Nests with eggs have been seen from June 17 to early July and nestlings reported as late as July 24.

Breeding Biology: Western flycatchers are highly aggressive, and their territorial aggression is directed not only toward their own species but also toward other species of similar size. Unmated males sing their advertising *ps-seet'-ptsick seet* notes throughout most of the day, whereas mated males sing only at dawn. Nests are constructed by one of the pair, presumably the female, over a period of 4 or 5 days, and the first egg is laid within a day or two of the completion of the nest. Incubation is performed by a single bird, also presumably the female, while the mate occasionally feeds her on the nest. During the first few days only one of the pair does all the brooding and most of the feeding, again most probably the female, but soon both parents are kept busy feeding the growing brood. The nestling period lasts from about 14-18 days, and for a period after the young depart from the nest the adults continue to feed them at a rate even greater than when they were in the nest. After about 4 days of this the female may stop feeding the brood and begin her second nest. As the young birds grow they become more independent and gradually drift away from the original territory.

Suggested Reading: Davis, Fisher, and Davis 1963; Bent 1942.

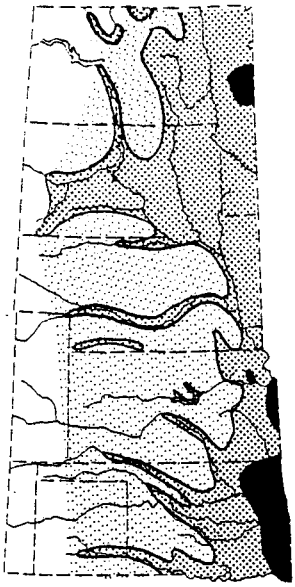


Eastern Wood Pewee
Contopus virens

Breeding Status: Breeds from the eastern half of North Dakota and western Minnesota southward through eastern South Dakota (west to Meade County), eastern Nebraska (west locally to Dawes, Dundy, and Deuel counties), possibly extreme eastern Colorado (no breeding records), eastern Kansas (west to the Cimarron River, where it may hybridize with *C. sordidulus*), Oklahoma except for the panhandle, and extending locally into the Texas panhandle, where it may be an occasional breeder.

Breeding Habitat: The species is generally associated with deciduous forest, including floodplain and river-bluff forests at the western edge of its range. It is also found in woodlots, orchards, and suburban areas planted to trees.

Nest Location: Nests are on horizontal tree limbs, often dead, usually well out from the trunk, and 15-65 feet above the ground. They are placed on the tree bark, often but not necessarily in a crotch, and are well camouflaged by spiderwebs and lichens, so that it may be easily overlooked. The nest is a surprisingly small, shallow cuplike structure lined with fine grass or hairs.

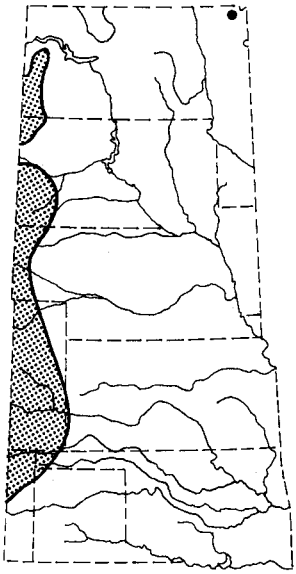


Clutch Size and Incubation Period: From 2 to 4 eggs, usually 3. Eggs are white, with brownish spots around the larger end. The incubation period is 12-13 days. Single-brooded.

Time of Nesting: In North Dakota the probable breeding season is from late May to mid-September, with singing males seen from May 27 to September 13. Kansas egg dates are from June 1 to July 20, with most clutches laid in mid-June. Oklahoma breeding records are from May 30 (nestlings) to August 5 (dependent young).

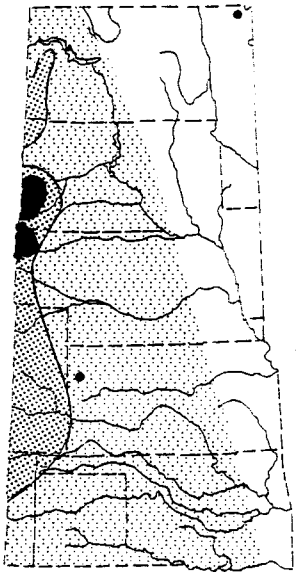
Breeding Biology: A rather late arrival among the flycatchers, pewees usually reach the northern states in late May, near the end of the spring migration period. In Minnesota the species favors oak woodlands for nesting and continues to sing its distinctive three-noted song through nearly the entire summer. As is typical of the Tyrannidae, only the female constructs the nest, which is usually on the same branch year after year. In one case a fork of an elm tree was used as a nest location by this species every year for 35 years. Incubation is done by the female, but the male occasionally feeds her and remains near the nest to help feed the young when they hatch. Like the nest, the juveniles closely resemble the surrounding bark and lichens, and by the 15th to 18th day after hatching they are ready to leave the nest. They are probably dependent on the parents for food for some time after fledging, until they have become skilled in catching flies.

Suggested Reading: Bent 1942; Craig 1943.



Western Wood Pewee
Contopus sordidulus

Breeding Status: Breeds from southwestern North Dakota (Little Missouri Valley), southward through western South Dakota (Black Hills), western Nebraska (Sioux, Dawes, and Scottsbluff counties, possibly hybridizing with *C. virens* in the Niobrara Valley west of Valentine), eastern Colorado (east to Logan County), Kansas (Cimarron Valley), the Oklahoma panhandle (Cimarron County), and adjacent New Mexico (Quay County). There are no breeding records for the Texas panhandle, but one extralimital record exists for Minnesota (*Loon* 49:169).



Breeding Habitat: The species uses diverse western habitats, including pine-oak woodlands, floodplain forests, and wooded canyons. Open, mature pine forests are used in the Black Hills, but not dense spruce woods. The birds are generally adapted to drier environments than the eastern wood pewee and use areas dominated by conifers.

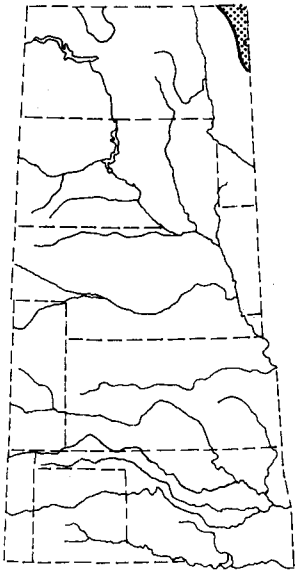
Nest Location: Horizontal branches of trees, especially dead branches, are used for nesting; as with the eastern species they may be placed in a fork or on the top of the branch. Nests are somewhat larger and more deeply hollowed than those of the eastern wood pewee, and usually the lichen covering is either lacking or replaced by other materials. Spider webs are always present, and sometimes the nest is lined with feathers rather than hair.

Clutch Size and Incubation Period: From 2 to 4 eggs, usually 3, identical to those of the eastern species. The incubation period is probably 12 days, and single brooding is likely.

Time of Breeding: South Dakota egg or nest dates are from June 1 to June 21, and dependent young have been seen as late as July 26. Colorado egg dates are from June 25 to July 9, although nests have been found as early as late May. There is an Oklahoma egg date for June 3.

Breeding Biology: There are few significant biological differences between the eastern and western wood pewees, and where their ranges come into contact they are suspected of hybridizing. One such area where this might occur is in the western Niobrara Valley of northern Nebraska (*Nebraska Bird Review* 29:15) and another is the Cimarron Valley of southwestern Kansas (Rising 1974). In such areas of contact the western species can usually be identified by its two-syllable *pee-a* or *pee-we* song, as opposed to the *pee-a-wee* song of the eastern species. However, some birds in the area of overlap have been known to sing the eastern song type and have plumage characteristics of the western species, so song identification may not be definitive proof of species where hybridization is possible.

Suggested Reading: Barlow and Rising 1965; Eckhardt 1976.



Olive-sided Flycatcher
Nuttallornis borealis

Breeding Status: Limited as a breeder to north-central and northwestern Minnesota (Kittson to Becker counties), although specific nesting records for the area seem to be lacking. It has been seen in summer but has not yet been proved to breed in the Black Hills.

Breeding Habitat: Coniferous forests, mixed forests, boggy areas, and burned-over forest areas provide nesting habitat in Minnesota.

Nest Location: Nests are usually well hidden in a cluster of needles and twigs on the horizontal branch of a conifer, well away from the trunk. They are usually between 15 and 50 feet above the ground. The nest is a loosely constructed cup of twigs, lichens, mosses, and needles, about 5-6 inches in diameter.

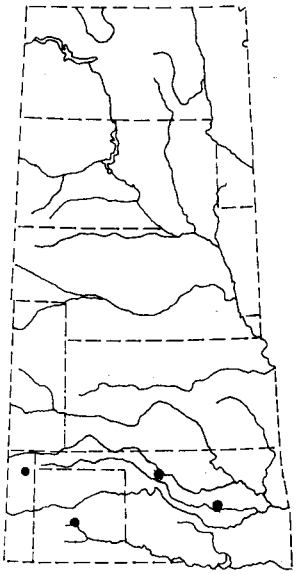
Clutch Size and Incubation Period: Usually 3 eggs, rarely 4. The eggs are white to creamy with a wreath of brownish spots and blotches. Incubation lasts 16-17 days. Single-brooded.

Time of Nesting: In Minnesota, nests or eggs have been found in mid-June, and fledglings a few days out of the nest have been reported on July 20.

Breeding Biology: Males of this species establish territories along the edges of tall coniferous forests, where they can sally out to obtain insect prey and can also sit on some high, exposed perch such as a dead tree or branch, uttering their loud and distinctive three-syllable song, *whip-whee'-peooo,* variously interpreted as "look, three deer," or "quick, three bears." Courtship and pair-formation have not been extensively studied in this species but probably closely resemble those of the other tyrant flycatchers. The nestling period is usually 15-19 days, but in one instance the young remained attached to the nest for 23 days, flying to and from it with their parents during the last few days.

Suggested Reading: Bent 1942; Roberts 1932.

Vermilion Flycatcher
Pyrocephalus rubinus



Breeding Status: Very rare or accidental breeder in Oklahoma (nesting records for Major and Lincoln counties). The species is scarce and local even in the Texas panhandle, but there is a breeding record for Amarillo (*Audubon Field Notes* 13:440), and one for Clayton, New Mexico (Hubbard, 1978).

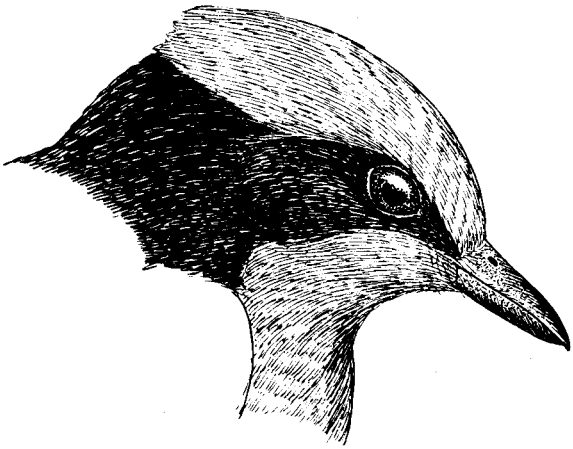
Breeding Habitat: In Texas, this species is found in largest numbers in widely spaced junipers and oaks, but it also occurs near cottonwoods, willows, oaks, mesquites, and sycamore-lined water areas. It is usually found rather near water, but it does not extend into canyons.

Nest Location: Nests are in bushes or trees, typically on a small horizontal, forked branch 8-20 feet above the ground. The nest is usually sunk down on the fork so that it is inconspicuous and

scarcely projects above the branch level. As with pewee nests, spider webs are incorporated, and the nest is decorated with lichens. It is also lined with soft materials, such as plant down, fur, or small feathers.

Clutch Size and Incubation Period: From 2 to 4 eggs, usually 3. The eggs are white to creamy, with heavy spotting on the larger end. The incubation period is 14–15 days. Frequently double-brooded.

Time of Breeding: In Texas, egg records are from March 25 to June 23. The Oklahoma nesting records are for May and June.

Breeding Biology: The males of this brilliantly colored species are highly territorial and not only chase other flycatchers but have been seen expelling swallows, warblers, and finches from their territories. One advertisement display is a song flight, during which the bird repeatedly utters a *pur-reet* note. When a pair bond has been formed, the male performs a nest-showing display, consisting of crouching down in a potential nest site, performing slight nest-building movements, and fluttering his wings while calling. The female may join the mate and perform much the same display but nevertheless may begin to build her nest at some other location in the same tree. Only the female builds the nest, which requires at least 4 days. Likewise, only the female incubates, while the male provides food for her. Both parents care for the nestlings, although only the female broods the young birds. The fledging period has not yet been reported, but in one case the pair began constructing a second nest only 4 days after their first day-old brood was found dead. New nests are constructed for second nestings, but materials from the first nest may be used in their construction.

Suggested Reading: Taylor and Hanson 1970; Smith 1970.