

WESTERN KINGBIRD - TYRANNUS VERTICALIS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Tyrannidae Genus: Tyrannus
Species: T. verticalis

Habitat:

Biomes: Western Kingbirds breed in open areas across western North America. Some of their preferred habitats include grasslands, desert shrub, savannah, pastures, cultivated fields, and urban land. Because they use trees and shrubs for nesting and open areas for foraging, Western Kingbirds often live near the edges of woodlands. They may be found near Fremont cottonwood, Arizona sycamore, oaks, junipers, creosote bush, mesquite, plains cottonwood, sagebrush, and ponderosa pine. They also perch and nest in human-made structures such as utility poles and fences. Western Kingbirds usually breed at elevations of less than 7,000 feet, in lowland areas or in mountain valleys. Most of them spend the winter in open woodlands, plantations, grasslands, and fields of southern Mexico and Central America.

Distribution:

In US: Their breeding habitat is open areas in western North America. The increase in trees throughout the Great Plains during the past century due to fire suppression and tree planting facilitated the range expansion of the western kingbird as well as range expansions of many other species of birds. These birds migrate in flocks to Florida and the Pacific coast of southern Mexico and Central America.

In Other Countries: NONE

Holistic Description: An eye-catching bird with ashy gray and lemon-yellow plumage, the Western Kingbird is a familiar summertime sight in open habitats across western North America. This large flycatcher sallies out to capture flying insects from conspicuous perches on trees or utility lines, flashing a black tail with white edges. Western Kingbirds are aggressive and will scold and chase intruders (including Red-tailed Hawks and American Kestrels) with a snapping bill and flared crimson feathers they normally keep hidden under their gray crowns.

Species Richness: NO SUBSPECIES

Population Dynamic: CHECK THREATS

Evolution and Systematics:

Evolution: Fossil bones discovered between 1927 to 1930 at asphalt deposit near Carpinteria, California, were recently reclassified. A distal coracoid bone, originally classified as Sayornis sp. has been identified as that of the Western Kingbird.

Systematics: Neither plumage color nor pattern varies across the species' breeding range, but body size averages slightly smaller in southern breeders.

Number of Species: NO SUBSPECIES

Number of Genera: NO SUBSPECIES

Physical Characteristics:

Size and Length: Length: 7.9-9.4 in (20-24 cm) Weight: 1.3-1.6 oz (37-46 g)

Wingspan: 15.0-16.1 in (38-41 cm)

Coloration: Western Kingbirds are gray-headed birds with a yellow belly and a whitish chest and throat. The tail is black with white outer tail feathers that are especially conspicuous in flight.

General Body Features: Western Kingbirds are fairly large flycatchers with large heads and broad shoulders. They have heavy, straight bills, long wings, and a medium-length, square-tipped tail.

Special Features of the Body: The dappled coloration of the Western Kingbird Flycatchers, especially on the chest and belly, helps them create a visual paradox to those looking at an individual on the treetop from the ground level, thus helping them stay concealed among the colorful canopies of the deciduous forests.

Special Features of the Head and Sensory Organs: The sharp, pointed beaks assist them in catching the insects with an accurate target and breaking the shells before consuming.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: ANISODACTYL feet help this bird when perching in trees.

Any Special Internal Anatomy: NONE

Sexual Dimorphisms: Sexually monomorphic in plumage, but primaries are longer and outer primaries more emarginated in male than in female.

Differences Between Juvenile Stage and Adult: Juveniles paler lemon yellow below with broadly pale-fringed upperwing coverts.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Males usually arrive at breeding areas before females and patrol the loosely defined borders of their territories. Once paired up, the male and female both help defend their territory, which shrinks as the breeding season progresses. By the middle of incubation the territory is quite small, consisting mainly of the nest tree and nest, but the pair defends it vigorously against other Western Kingbirds and other kingbird species. They even chase away larger predators, such as Red-tailed Hawks and American Kestrels, using a harsh buzzing call, snapping their bills, and raising their hidden red crown feathers. One of the biggest causes of nest failure is predation, despite the valiant efforts of the parents. Nest predators include snakes, squirrels, woodrats, owls, hawks, falcons, ravens, crows, magpies, and shrikes. Pairs mate monogamously, staying together to feed their young for up to three weeks after the young have fledged. They are mostly solitary throughout the rest of the year. Though Western Kingbirds tolerate neither closely related species nor predators in their territories, they may nest in the same tree as other birds such as Mourning Doves, Great-tailed and Common grackles, Bullock's Orioles, Ash-throated Flycatchers, House Sparrows, American Robins, House Wrens, and Northern Flickers.

Locomotion: Virtually all locomotion is by flight; majority of prey is captured on the wing. Agile in flight as indicated by tendency to chase and pursue predators such as Red-tailed Hawk (*Buteo jamaicensis*) and American Kestrel (*Falco sparverius*) during the nesting season.

Communication and Perception: Though it's not technically in the group of birds known as songbirds, the Western Kingbird has one call that functions as a song. Starting just before sunrise, breeding males perch on tree limbs or wires and give a rising series of sharp kips, culminating in a frantic burst of loud descending notes. Each call lasts about 2 seconds, and the male may repeat the pattern for half an hour to proclaim his territory.

Home Range: Male generally arrives at breeding areas prior to female. Soon after arrival, male patrols loosely defined territories and defends against conspecifics. Vocalizations may accompany patrolling, but song posts (used by some oscines) are not used by Western Kingbirds or other members of the genus. After pairing, male and female defend territory. Territory decreases in size after pairing, and patrolling activities decrease. By middle of incubation, territory is quite small, centering on nest tree and nest. Individuals aggressively defend nest tree and nest against conspecifics.

Degree of Sociality: Generally solitary except for association with mate during the breeding season. Solitary during spring migration in Trans-Pecos area of Texas.

Level of Aggression: Along with congenetics, noted for its belligerent behavior. Numerous agonistic displays identified: Wing Flutter, Wing Flick, Wing Whirr, Crouch, Revealed Crown Patch, Raised Revealed Crown Patch, Crown Ruffled, Gape, and Bill Snap.

Migration: Medium- to long-distance migrant. At the end of summer, Western Kingbirds begin their southward migration by flying to New Mexico, eastern Arizona, and northern Mexico, where they undergo a complete molt. Then they migrate the rest of the way to southern Mexico and Central America. Some may fly across the Gulf of Mexico, but most fly overland through interior Mexico and along the Pacific slope. (A few Western Kingbirds migrate to south Florida for the winter.)

Predators:

Predators: Rat Snake, Gopher Snake, Western Kingbirds, Black-billed Magpie, Chihuahuan Raven, Loggerhead Shrike, Cooper's Hawk, Peregrine Falcon, American Kestrel, Great-horned Owl, Whipsnakes, Raccoons, Fox Squirrels, and Woodrats.

Anti-Predator Defenses: Aggressively defends nest against predators. Corvids, hawks, owls, and other avian predators often object of persistent attacks; human visitors to nest may be struck repeatedly. Eggs and nestlings most vulnerable to predation; agile flight of adults may limit their loss to predation. Male and female may attack predators, although male is more aggressive. Male often perches nearby guarding nest while female is away foraging, or while female is incubating or brooding young. Either sex may use the Regularly Repeated Vocalization when first disturbed by a predator near a nest; this vocalization is replaced by the Attack Vocalization when attacks are initiated. Attack of a stationary or slow-moving predator (e.g., owl) involves hovering over the predator, then diving at its head, repeating the Attack Vocalization, then returning to hover.

Diet and Nutrition:

Adult Diet: Like most other flycatchers, Western Kingbirds are mainly insectivores. They hunt by sight during the day, using acrobatic maneuvers to catch flying insects out of the air. A kingbird on the hunt may capture two or more insects before returning to its perch, where it shakes them or beats them against the perch to subdue them. Western Kingbirds also swoop down from perches to eat terrestrial prey, and glean insects from vegetation while hovering. Smaller-billed than most other North American kingbirds, they probably choose smaller prey. They eat bees and wasps, grasshoppers and crickets, beetles, moths and butterflies, caterpillars, flies, bugs, and spiders. On occasion they may eat fruits of elderberry, hawthorn, Texas mulberry, woodbine, and other shrubs.

Juvenile Diet: CHECK PARENTAL CARE

Special Adaptations for Getting Prey: Visual predator; typically a diurnal forager. Foraging behavior is flexible compared to that of other tyrant flycatchers. From breeding ground observations, captures most prey by sallying from perch to catch flying insects, returning to same or different perch (aerial hawking); may fly from perch, hover, and pick insects from vegetation (sally-gleaning); also flies from perch to pick insects from ground (perch-to-ground sallying). Prey is seized in bill, and upon return to perch, insect is often subdued by shaking or striking on perch. **Bill is among the smallest of North American kingbirds (Eastern Kingbird and Scissor-tailed Flycatcher have smaller bills), suggesting that smaller prey are selected than in most other kingbirds.**

Reproduction:

Mode of Reproduction: Monogamy

Mating System: Behaviorally monogamous.

Mating Season: March to August

Courtship: Most prominent courtship display is Tumble Flight, which is performed only by male. Male flies up 12–18 m, at peak of ascent twists sharply and stalls, then begins to tumble down uttering bursts of the Regularly Repeated Vocalization, sometimes adding notes of the Attack Vocalization. Male tumbles for 1–3 m before ascending again and then stalling and tumbling downward, then returning to original perch. Tumble Flight is performed at dawn and dusk during periods of high activity for males; this is time of active vocalization. If other males are nearby, Tumble Flight of one will stimulate others to perform.

Territoriality: HOME RANGE

Mating: NONE

Nest Placement: Western Kingbirds build nests on crotches of trees or shrubs such as cottonwood, Texas mulberry, pecan, elm, willow, mesquite, creosote, yucca, sycamore, box elder, western juniper, big sagebrush, and green ash. They also use human-made structures such as utility poles, windmills, antennae, fenceposts, buildings, and metal girders. Both males and females visit potential nesting locations, but it's unclear which one chooses the site.

Nest Description: The female builds the nest by herself, weaving together a bulky, open cup of grass stems, rootlets, fine twigs, cottonwood bark, cotton, and other plant fibers. She lines it with an inner layer of softer material such as wool, hair, feathers, string, or cloth. The nest measures about 6 inches across and 4 inches deep on the outside, while the inner cup is about 3 inches across and 2 inches deep.

Egg-Laying: Clutch Size: 2-7 eggs Number of Broods: 1-2 broods Egg Length: 0.9-0.9 in (2.3-2.4 cm) Egg Width: 0.7-0.7 in (1.7-1.8 cm) Incubation Period: 12-19 days Nestling Period: 13-19 days Egg Description: White, creamy, or pinkish with heavy blotches of brown, black, or lavender.

Hatching and Incubation/Gestation: Helpless and sparsely covered in white down, with eyes closed.

Development: Altricial, nidicolous, eyes closed. White down on the alar, humeral, spinal, femoral, crural, caudal, and capital tracts; ventral tract bare. Skin is thin and translucent, ventral color pink, dorsal color reddish; gape is yellow, mouth lining pink.

Parental Care: Brooding begins after hatching and continues for about 10 d until nestlings have completed Prejuvenile molt. Only female broods. Both sexes begin to feed nestlings immediately after hatching. Nestlings fed directly by adults with regurgitation the first 2 d; insects thereafter. Grasshoppers, robber flies, winged-ants, and bees compose most of nestling diet in se. Arizona; larger food items given as nestlings grow.

Lifespan: Up to 7 years of age. CHECK FACTS.

Conservation:

Official Federal Status: Least Concern

Special Statutes in Individual States: NONE

Threats: Western Kingbirds are common and overall, populations remained stable between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 22 million with 91% spending part of the year in the U.S., 49% in Mexico, and 5% breeding in Canada. They rate a 9 out of 20 on the Continental Concern Score and are not on the 2014 State of the Birds Watch List. Western Kingbird populations fluctuate on a local scale, decreasing when high predation or bad weather destroy many nests but generally rebounding quickly after favorable years. Western Kingbirds seem to benefit from many human activities, and their range has grown since the late 1800s. They have spread eastward across the prairies of the Dakotas as people planted trees, and expanded across Texas as people cleared forests and installed utility poles and wires. Since Western Kingbirds nest near cultivated crops and often hunt for insects in farm fields, they may be harmed by pesticides.

Conservation Efforts: ^^^^^^^^

Extra Facts:

1. The Western Kingbird's breeding range has been spreading for the last century as an unplanned result of human activities. By planting trees and installing utility poles in open areas, people have provided hunting perches and nest sites, and by clearing forests they have created open habitats suitable for foraging.
2. Though known as birds of the West, Western Kingbirds tend to wander during fall migration. They show up along the East Coast, between Florida and Newfoundland, every autumn—but only rarely during the spring. In 1915 Western Kingbirds began spending winters in Florida, where they are now regular winter residents.
3. Western Kingbirds aggressively fend off predators and other kingbirds from their territories. The males warn off intruders with harsh buzzes or whirring wings. Both males and females snap their bills and raise their red crowns (normally hidden under gray feathers on their heads) when provoked. As the breeding season wears on, each pair defends a smaller and smaller territory. By mid-incubation time the territory includes the nest tree and little else.
4. The Western Kingbird was originally known as the Arkansas Kingbird, but scientists changed its name to acknowledge its wide range across western North America.
5. The oldest Western Kingbird on record was a male, and at least 6 years, 11 months old, when he was found in South Dakota.

Notable Species: NONE