

# VERMILION FLYCATCHER - PYROCEPHALUS RUBINUS

**Taxonomy:** Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Tyrannidae Genus: Pyrocephalus Species: P. rubinus

## **Habitat:**

**Biomes:** Vermilion flycatchers generally prefer somewhat open areas, and are found in trees or shrubs in savannah, scrub, agricultural areas, riparian woodlands, and desert as well, but usually near water. Scrub, desert, cultivated lands, and riparian woodlands.

## **Distribution:**

**In US:** Their range includes almost all of Mexico; it extends north into the southwestern United States, and south to scattered portions of Central America, parts of northwestern and central South America. It has ranged as far north as Canada.

**In Other Countries:** NONE

**Holistic Description:** A spectacular and distinctive flycatcher, the bright red Vermilion Flycatcher inhabits riparian areas and scrub in the southwestern United States and southward. It perches conspicuously, making periodic flights to nab insect prey.

**Species Richness:** 11 SUBSPECIES, 9 IN RUBINUS GROUP, 2 IN GALAPAGOS GROUP. GALAPAGOS CONSIDERED SOMETIMES TO BE A DIFFERENT SUBSPECIES

**Population Dynamic:** Because of its enormous range and sizable population—estimated as ranging between 5,000,000 and 50,000,000 individuals—the vermilion flycatcher is listed as a species of least concern by the International Union for the Conservation of Nature, despite the fact that its overall numbers are declining.

## **Evolution and Systematics:**

**Evolution:** NONE

**Systematics:** Breeds in at least four disjunct, broad geographic regions: North and Central America, n. and w. South America, central and se. South America, and Galápagos Is. Populations at northern and southern extremes are migratory, intervening populations are largely sedentary. In North and Central America, adult male paler and less saturated, tending toward orange-red in populations from s. California east to w. Texas south through nw. Mexico. This distinction weak and broadly clinal, with birds in Baja, s. Texas, and Jalisco intermediate.

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## **Physical Characteristics:**

**Size and Length:** Length: 4.8-5.4 in (12.3-13.8 cm) Weight: 0.4-0.5 oz (11.3-14.8 g)

**Wingspan:** 30-33 cm

**Coloration:** **Male Description:** Crown, lower face, and underparts brilliant scarlet or vermilion. Upperparts, nape, and mask through the eye blackish brown. Wings and tail dark blackish brown. Outer tail feathers may be edged with white. Narrow white tip on tail. **Female Description:** Upperparts grayish brown. Underparts white near throat, becoming pale salmon or orangish under the tail. Breast, sides, and flanks streaked with grayish brown. Dull white eyebrow stripe and gray line through eyes. Wings and tail dark grayish brown. Some may have a few pinkish red feathers on the crown or breast.

**General Body Features:** Medium sized flycatcher with a short tail.

**Special Features of the Body:** The colorful coloration of the Vermilion 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. Helps this organism perch extremely easily.

**Any Special Internal Anatomy:** NONE

**Sexual Dimorphisms:** Male has bright red or red-orange head and underparts. Female is dull grayish brown above, with pale red under the tail and a streaked whitish chest. CHECK COLORATION

**Differences Between Juvenile Stage and Adult:** Juvenile with scaly grayish back, white underparts, white outer tail feathers, and dusky spotting across chest. Immature male resembles adult female, with more extensive reddish color under tail and on flanks and variable amounts of dull red mottling. Immature female is similar to adult female, but with yellow, not reddish, under the tail.

**Behavior:**

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: The male Vermilion Flycatcher often seeks to initiate copulation by delivering a butterfly or other showy insect to the female. During breeding season, the male Vermilion Flycatcher performs a spectacular display, fluttering 10 to 30 meters (11-33 ft) above the canopy, singing. Sits and waits on an open perch, locates prey, and pursues it. Often takes prey on the wing, from ground level to a height of about 10 meters (33 ft).

Locomotion: Spends little time on ground. Occasionally lands on ground to secure prey; rarely hops. Most locomotion via flight. Transit flights are swift and direct with regular wingbeats and no undulation in flight path; rarely glides. Foraging flights generally short and direct, but often erratic during prolonged pursuits. Routinely engages in swift boomerang or swooping foraging flights that return to perch. Often hovers briefly when gleaning prey or feeding mate at nest.

Communication and Perception: Song is a series of chips followed by a trill; often repeated about 10 times. Call is a sharp, long "peent."

Home Range: During territorial behavior, aggressive interactions with conspecifics generally infrequent although individuals observed frequently attacking their reflection on vehicle mirrors and windows. Mated male on territory aggressively pursued other male in short flights; following each flight males perched 3–6 m apart, crests erect and tails held downward and fanned. Birds flicked tail, emitted Contact Call and occasionally snapped bill. In lower Colorado River Valley breeding may be delayed a month in some pairs due to intense aggression and tight packing of breeding pairs.

Degree of Sociality: Typically solitary. Occasional small flocks of 4–5 males reported during winter.

Level of Aggression: Little known; individuals commonly chase each other in territorial disputes early in breeding season. Males also supplant and chase females on occasion; may include wing whirring. Raises crest and pumps and fans tail during aggressive encounters with conspecifics. Also fans tail and raises wings during Nest-Site-Showing Display. May snap bill during aggressive encounters.

Migration: Largely resident, but northernmost breeding populations in s. U.S. and nw. Mexico and southernmost breeding populations in s. South America are migratory. Migratory distances range between 0 and 4,000 km. Some individuals occasionally winter in the northernmost portion of the breeding range.

**Predators:**

Predators: Western-Scrub Jay, Fire Ants. FEW DATA, USE OTHER FLYCATCHERS.

Anti-Predator Defenses: NONE

**Diet and Nutrition:**

Adult Diet: Flying and terrestrial insects, also other arthropods. Insects and other arthropods. Honeybees, Grasshoppers, Beetles, Crickets.

Juvenile Diet: Nestling diets were composed of butterflies and moths, which comprised 28% of prey items; half of these were larval. Spiders (Araneidae), mayflies (Ephemeroptera), grasshoppers, and crickets accounted for another 22%, 16%, and 14%, respectively, of total of prey items. Flies (Diptera), beetles, and termites (Isoptera) composed balance of diet at 10, 6, and 4%, respectively, of total items fed to young.

Special Adaptations for Getting Prey: Sit-and-wait predator; prey located from exposed perch and pursued directly until capture. Prey captured singly; large prey, grasshoppers (Orthoptera), and butterflies (Lepidoptera) carried to perch and beaten before consumption. In aerial-hawking, prey are pursued and snapped from air in a swift direct flight. Prey that escape initial attack may be pursued in an erratic acrobatic chase until capture. Often uses short swooping flights with immediate return to starting perch. Ground prey frequently captured in perch-to-ground sallies.

**Reproduction:**

Mode of Reproduction: Monogamous

Mating System: Socially monogamous. Genetic analysis found extra-pair offspring among 31-63% of 16 broods of Vermilion Flycatchers in Mexico.

Mating Season: March to August

Courtship: Male often flew to female with a large showy insect and initiated copulation. In 5 encounters, male held an adult Lepidopteran in bill during copulation; in 3 of 5 instances female was given insect. Male frequently accompanies female during nest construction

Territoriality: HOME RANGE

Mating: Frequent copulations observed while female off nest during incubation. Between 15:00 and 18:00, male fed female on nest 13 times; 3 copulations were observed during 11 h. Average feeding rates about 1/h (range 0–5/h), and male flight displays 1 to 3 times/h

**Nest Placement:** Typically nests in trees that line riparian corridors; water may be nearby, but not required. Commonly used trees include mesquite, huisache, cottonwood, oak, pecan, and occasionally Texas ebony, willow, and sycamore. Nest inconspicuous, somewhat cryptic due to placement and composition; almost always fitted into horizontal fork of branch in an area free of leaves.

**Nest Description:** A loose cup of twigs, grasses, and fibers, lined with down, feathers, and hair. Usually placed in a fork in a horizontal tree branch, about 2.5 to 6 meters (8-20 ft) off the ground.

**Egg-Laying:** Clutch Size: 2-4 eggs Number of Broods: 1-2 broods Egg Length: 0.6-0.8 in (1.6-1.9 cm) Egg Width: 0.4-0.6 in (1.1-1.4 cm) Incubation Period: 13-15 days Nestling Period: 14-16 days Egg Description: White or creamy, with bold dark blotches and small lighter spots.

**Hatching and Incubation/Gestation:** Helpless with sparse whitish down, back skin blackish.

**Development:** Altricial. Natal down light gray, dense, and short. Gape yellow, rectal flanges yellow. Body mass of 2 young on day of hatching, 1.1 g and 1.5 g.

**Parental Care:** Female broods young. Male brings food to female while on the nest, and female either feeds young or eats prey.

**Lifespan:** Up to 5.5 years. CHECK FACTS.

**Conservation:**

**Official Federal Status:** Least Concern

**Special Statuses in Individual States:** NONE

**Threats:** Vermillion Flycatcher is common in most of its range, and overall populations were stable between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 20 million birds, with 10% spending some part of the year in the U.S., and 22% in Mexico. The species rates a 5 out of 20 on the Continental Concern Score. Vermillion Flycatcher is not on the 2014 State of the Birds Watch List. Human water use and land development have caused drastic declines in Vermilion Flycatcher populations in the lower Colorado River Valley. Habitat destruction poses threats to the species in various parts of its range.

**Conservation Efforts:** ^^^^^

**Extra Facts:**

1. The breeding male Vermilion Flycatcher spends about 90 percent of the day perched.
2. Twelve subspecies of Vermilion Flycatcher are recognized, including a race with a dark morph that ranges from western Peru to northern Chile. Both male and female of this morph are dark all over, with some males having a few red feathers on the head, and some females having a pinkish wash under the tail. About half of the Vermilion Flycatchers in Lima, Peru are the dark morph, but the proportion decreases as one goes further southward.
3. The male Vermilion Flycatcher often seeks to initiate copulation by delivering a butterfly or other showy insect to the female.
4. The oldest recorded Vermillion Flycatcher was a male, and at least 4 years, 6 months old when he was shot in Mexico in 1972, the same country where he had been banded.

**Notable Species:**

1. *P. o. ardens*, described by John Todd Zimmer in 1941, is found in northern Peru, in extreme eastern Piura, Cajamarca and Amazonas.
2. *P. o. blatteus*, described by Outram Bangs in 1911, is found in southeastern Mexico, Belize and northern Guatemala.
3. *P. o. cocachacrae*, described by John Todd Zimmer in 1941, is found from southwestern Peru south to extreme northern Chile.
4. *P. o. flammeus*, described by van Rossem in 1934, is found in southwestern United States and northwestern Mexico
5. *P. o. mexicanus*, described by Philip Sclater in 1859, is found from southern Texas in the United States south to central and southern Mexico.
6. *P. o. obscurus*, described by John Gould in 1839, is found in the Lima region of western Peru.
7. *P. o. pinicola*, described by T. R. Howell in 1965, is found in eastern Honduras and northeastern Nicaragua.
8. *P. o. piurae*, described by John Todd Zimmer in 1941, is found from western Colombia south to northwestern Peru.
9. *P. o. saturatus*, described by Hans von Berlepsch and Ernst Hartert in 1902, is found in northeastern Colombia, western and northern Venezuela, Guyana and northern Brazil.