

GREAT CRESTED FLYCATCHER - MYIARCHUS CRINITUS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Tyrannidae Genus: Myiarchus
Species: M. crinitus

Habitat:

Biomes: Great Crested Flycatchers prefer breeding territories in open broadleaf or mixed woodlands and at the edges of clearings rather than in dense forests. They avoid the northern coniferous (boreal) forests of Canada. Among woodlands, they favor edge habitats in second-growth forests, wooded hedgerows, isolated woody patches, and selectively cut forests over continuous, closed-canopy forests. Dead snags and dying trees are important sources of the cavities they need for nesting. They tolerate human presence and will search out cavities in old orchards and in woody urban areas like parks, cemeteries, and golf courses. If there are enough trees, they will claim territories in pastures, along streams and rivers, and in swamps and wetlands. On their winter grounds, they extend their tolerance of wooded habitats to shrubby clearings, clearings with scattered trees, and semiarid forests.

Distribution:

In US: The summer breeding ground covers all eastern, mid-eastern and parts of central United States, including Northern and Southern parts of Florida, parts of Texas, central Oklahoma, and eastern and central North Dakota. In Canada, it is limited to southern Manitoba, extreme southern portions of the St-Lawrence forest of Ontario, Quebec, northeast Nova Scotia and parts of Prince Edward Island. Its winter range includes most of southern Mexico and the Yucatán Peninsula, and extends along the costs of Central America. In southern peninsular Florida, Great Crested flycatcher can be found year-round.

In Other Countries: NONE

Holistic Description: A large, assertive flycatcher with rich reddish-brown accents and a lemon-yellow belly, the Great Crested Flycatcher is a common bird of Eastern woodlands. Its habit of hunting high in the canopy means it's not particularly conspicuous—until you learn its very distinctive call, an emphatic rising whistle. These flycatchers swoop after flying insects and may crash into foliage in pursuit of leaf-crawling prey. They are the only Eastern flycatchers that nest in cavities, and this means they sometimes make use of nest boxes.

Species Richness: NO SUBSPECIES

Population Dynamic: CHECK THREATS

Evolution and Systematics:

Evolution: Neospecies Myiarchus crinitus is known from the Holocene of Illinois.

Systematics: Breeders from the Northeast and Florida do not differ in plumage color or pattern or in wing or tail length, but these birds do differ, on average, in the length and width of the bill: breeders from Florida have the bill longer and wider than do breeders in the Northeast. This variation appears to be smoothly clinal.

Number of Species: NO SUBSPECIES

Number of Genera: NO SUBSPECIES

Physical Characteristics:

Size and Length: Length: 6.7-8.3 in (17-21 cm) Weight: 0.9-1.4 oz (27-40 g)

Wingspan: 13.4 in (34 cm)

Coloration: Great Crested Flycatchers are reddish-brown above, with a brownish-gray head, gray throat and breast, and bright lemon-yellow belly. The brown upperparts are highlighted by rufous-orange flashes in the primaries and in the tail feathers. The black bill sometimes shows a bit of pale color at the base.

General Body Features: Great Crested Flycatchers are large flycatchers with fairly long and lean proportions. Like many flycatchers they have a powerful build with broad shoulders and a large head. Despite its name, this bird's crest is not especially prominent. The bill is fairly wide at the base and straight; the tail is fairly long.

Special Features of the Body: The dappled coloration of the Great Crested 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: The ANISODACTYL feet allow this bird to perch very easily.

Any Special Internal Anatomy: These birds have an unusual habit of frequently using shed snake skins in their nest linings. Scientists think that this is a behavioral adaptation so as to confuse predators approaching their nests inside tree holes.

Sexual Dimorphisms: The great crested flycatcher does not display sexual dimorphism. All adults are brownish on the upperparts with yellow underparts; they have a long rusty brown tail and a bushy crest. Their throat and breast are grey. Males slightly larger than females.

Differences Between Juvenile Stage and Adult: Similar to Definitive Basic Plumage but duller throughout; upperparts darker olive-brown; uppertail coverts tinged cinnamon rufous; upperwing median and greater coverts edged terminally with cinnamon rufous or cinnamon-buff; inner webs of rectrices and both edges of primaries edged more broadly with rich cinnamon rufous; chin pale gray; throat and breast ashy gray; remainder of underparts primrose yellow. Juvenile body feathers (especially undertail coverts) filamentous due to lower barb density than feathers of later plumages.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Great Crested Flycatchers hunt from perches in the treetops, peering in all directions with a characteristic bobbing head. They're swift, agile fliers and persistent in chasing flying prey; a first miss doesn't end the chase. If they've spotted prey sitting on a leaf top, a twig, tree trunk, or a weed head, they swoop down from their perch, then brake abruptly to hover just long enough to snatch the prey and fly off. Sometimes the braking is minimal, and they crash into foliage with little slowing to snap up the prey before continuing along their flight path. They'll drop down to take prey on the ground, too. Males swoop down at females from high perches to solicit mating. If the female retreats to a cavity, he hovers before returning to a perch and repeating the maneuver for another try. He guards his mate particularly during nest-building and egg-laying. Intruding neighbors are never ignored. If calls don't dissuade the intruder, a raised crest, a forward-leaning posture accompanied by a nodding or pumping head. A snapping bill and rapid chase may follow. If still undeterred, the intruder faces attack, grappling, and feather pulling. Eggs (and sometimes the incubating females) are vulnerable to predation by snakes. Squirrels also often raid their nests. In spite of their preference for edge habitats, Great Crested Flycatchers are only infrequently parasitized by Brown-headed Cowbirds, probably both because they nest in cavities and because they are very aggressive toward intruders.

Locomotion: Spends little time on ground. Even if unsuccessful in catching prey on ground, usually flies back to perch and makes another sally rather than hopping or walking along ground. If prematurely fledged young are on ground, parent will fly up from one fledgling and over to another, rather than moving along ground. Flight is swift, as it must be to secure flying insects. When not pursuing prey, may glide from one perch to another with seemingly effortless flight, often on motionless wings and spread tail.

Communication and Perception: The male sings a three-part dawn song: two short, sweeping whistles (one low- and one high-pitched) and a low burry vibrato. The order of these syllables can vary, and the whole song lasts about 3 seconds. The two upsweeping whistles resemble the whee-eeep call (see Calls), but are more relaxed. The final note is sometimes absent or may be so soft it can only be heard by a nearby mate. Singing can become intense just before dawn: a male within the canopy may sing every two seconds in bouts of 15 to 30 minutes.

Home Range: TERRITORIALITY and in Maryland, territories varied in size from 1.6 to 3.2 ha (Stewart and Robbins 1958). Similar territory sizes reported in Minnesota, with 2.7 - 5.5 territories / 10 ha.

Degree of Sociality: Never in flocks; usually solitary or in pairs. Intolerant and aggressive toward other species entering the territory. Territory size tends to decrease after nest-building and egg-laying.

Level of Aggression: In territorial encounters, often raises crown feathers to appear crested, frequently leans forward on its perch, nodding or pumping its head in an almost lizard-like manner, and snaps its bill loudly. Intolerant and aggressive toward other birds and small mammals that approach nest cavity and to other individuals of its species that enter the territory. Mated birds defending territories will engage in short chases. "Countersinging" by neighboring males is particularly common when territorial boundaries are disputed.

Migration: Medium- to long-distance migrant (it's possible that individuals in southern Florida do not migrate). All breeding populations north of central Florida winter in central and southern Florida, southern Mexico, Central America, and northwestern South America. They typically leave their northern breeding grounds in September and begin to return to the southern United States in mid-March. They tend to migrate alone.

Predators:

Predators: Snakes, Squirrels, Sharp-Shinned Hawk.

Anti-Predator Defenses: Engels speculated that a nest site located in "open wasteland, dotted with dead red cedars... entirely free of snakes and other predators" was "completely insured against predatory enemies." Mousley described an attack by a Sharp-shinned Hawk on a female Great Crested Flycatcher that escaped by diving into some bushes.

Diet and Nutrition:

Adult Diet: Great Crested Flycatchers eat mainly insects and other invertebrates, as well as small berries and other fruits. They eat butterflies and moths, beetles, grasshoppers and crickets, bugs, bees and wasps, flies, other insects, and spiders.

These they'll take from the air, the surfaces of leaves and branches, off the ground, from haystacks, from bark crevices, or from crannies in such human-made structures as fence posts and rails. Plant food includes small whole berries, the pits of which are regurgitated after the berries are eaten whole. Dragonflies, moths, and butterflies are offered to chicks whole, wings and all, but if they're rejected, the parents crush the insects and re-offer them.

Juvenile Diet: ^^^^^

Special Adaptations for Getting Prey: (1) Sallies out from a perch for flying insects; if catches nothing on first try, often follows prey until catching it. (2) Hangs on rapidly beating wings to pick insects off leaf, branch, or tree trunk (the "outward hover-gleaning"). (3) Drops down from perch to secure prey on ground; if unsuccessful, rises into air and dives down again rather than hopping or running along ground.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Socially monogamous.

Mating Season: Falling between March and April for the southern population, and May to June for the northern.

Courtship: Mating ritual for the great crested flycatcher is described as males swooping down from a high perch in order to initiate mating with females, sometimes hovering near hideaway if female retreats, before returning to perch and repeating diving routine until mating is successful.

Territoriality: Taylor and Kershner reported that both sexes "vigorously defended the nest and surrounding area. Not one instance was observed when an intruding flycatcher [conspecific] was ignored. Rapid chases, bill snaps, repeated weeps, loud whist calls, and body attacks were given to the intruder, especially by the defending male. Young-of-the-year flycatchers were attacked as vigorously as were adults." The males "would draw up close to one another, over fences and bushes, expand their wings, spread their tails, and dart rapidly at each other. They then tore some feathers from breasts, held fast with their claws, and tossed and tumbled toward the ground." Males engaging in such conflict may lie motionless for several seconds after tumbling toward the ground.

Mating: Pairs copulate or attempt to copulate from nest-building to hatching; male frequently attempts copulation at the nest site, sometimes while female is carrying nest material in bill. Copulation lasts a few seconds. Males are more vocal than females during copulation, rendering Huit notes during the act, and Rasps if repulsed. Mate replacement observed immediately after death of breeding male; new male assumed territorial role but did not assist widowed female with parental care of existing nestlings; after existing nest attempt failed, re-nested successfully with the same female during the same season.

Nest Placement: Great Crested Flycatchers nest in cavities. They favor natural cavities in dead trees, but will use large, abandoned woodpecker holes, nesting boxes, hollow posts, and even buckets, pipes, cans, and boxes of appropriate size. Both sexes inspect potential nesting cavities anywhere from two to 70 feet from the ground.

Nest Description: The female does most if not all of the nest-building, while the male keeps her close company. If the cavity is much deeper than 12 inches, she first backfills it with debris before building her nest in the back of the remaining space. She uses a wide variety of materials, from grasses, leaves, twigs, and stems, to hair and fur, snail and sea shells, feathers, bark, moss, cellophane, onion skin, paper, cloth, eggshells, and, quite commonly, shed snakeskin. The inner cup is usually 3 to 3.5 inches across, and 1.5 to 2 inches deep. The female may continue to add fine materials, like feathers, to the nest during egg-laying, incubation, and brooding.

Egg-Laying: Clutch Size: 4-8 eggs Egg Length: 0.8-0.9 in (2.1-2.4 cm) Egg Width: 0.6-0.7 in (1.5-1.8 cm) Incubation Period: 13-15 days Nestling Period: 13-15 days Egg Description: Creamy white to pinkish buff splotched with brown, purple, or lavender.

Hatching and Incubation/Gestation: Helpless, sightless chicks are born naked, but soon sport a grayish down.

Development: Altricial young; eyes closed; natal down on capital, spinal, ventral, and humeral tracts. White rictal flanges contrasted with yellow lining of mouth. Mean weight of 12 nestlings, still wet from hatching, was 3.0 g \pm 0.32 SD.

Parental Care: Female alone broods nestlings for about 6 d. Brooding periods range from 2 to 28 min. Before 06:00, mean brooding time was 11.8 min \pm 7.6 SD. Both parents feed nestlings, but female feeds more often. Both may approach the nest together; male sits on a nearby perch until female emerges from the cavity, then enters if he has food to offer. Parents may be silent while bringing food to nest.

Lifespan: 2-10 years.

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Great Crested Flycatcher populations have remained stable across their breeding range from 1966 to 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population is 6.7 million, with 91% spending part of the year in the U.S., 23% in Mexico, and 9% breeding in Canada. They rate an 8 out of 20 on the Continental Concern Score. Great Crested Flycatcher is not on the 2014 State of the Birds Watch List. Local increases may be due to greater fragmentation of woodlands, which expands the edge habitats they favor. Local decreases may be due to competition for nesting cavities from European Starlings, Tree Swallows, House Wrens, Eastern Bluebirds, or squirrels. "Clean" forestry practices have reduced the number of suitable natural cavities by removing dead snags and the like from forests. These flycatchers are resilient, and will nest in a wide variety of sizes and kinds of cavities in a wide variety of habitats. They tolerate human presence and readily accept hanging nesting boxes.

Conservation Efforts: ^^^^^^^

Extra Facts:

1. Great Crested Flycatchers weave shed snakeskin into their nest. Where it's readily available, as in Florida, nearly every nest contains snakeskin. They also seem to look for flimsy, crinkly nest materials—they've also used onion skins, cellophane, or plastic wrappers.
2. Though they're flycatchers, these birds also eat a fair amount of fruit. Instead of picking at the flesh of small fruit, Great Crested Flycatchers swallow the fruit whole and regurgitate the pits, sometimes several at a time.
3. Where other insect-snatching birds like Eastern Wood-Pewees, Least Flycatchers, Acadian Flycatchers, or Eastern Phoebe share their habitat, Great Crested Flycatchers exploit a niche higher in canopy to avoid direct competition for food. High up, they swoop out farther for prey, using multiple dead-branch perches.
4. When the male sings, it's to be heard, not to see or be seen. He picks a singing perch within the canopy, well away from branch ends. In contrast, hunting perches require an unobstructed view of potential prey and unobstructed flight paths to them, whether the prey are in the air or on leaves or twigs. Both sexes favor hunting from dead branches with a backdrop of foliage for cover.
5. Nestlings rarely return to breed near where they were born. But once yearlings have chosen a breeding area, they often return to that same area year after year. Some pairs re-establish their bond from the previous season and may even reuse the same nesting cavity.
6. Great Crested Flycatchers live along the edges between habitats; they don't need big stretches of unbroken forest canopy to thrive. That means that logging and development practices that increase forest fragmentation actually work to their advantage, in sharp contrast to birds that dwell deep in the forest.
7. The Great Crested Flycatcher is a bird of the treetops. It spends very little time on the ground, and does not hop or walk. It prefers to fly from place to place on the ground rather than walk.
8. The Great Crested Flycatcher makes the same "wee-eeep" calls on the wintering grounds that it makes in summer.
9. The oldest recorded Great Crested Flycatcher was at least 14 years, 11 months old when it was found in Vermont in 1967. It had been banded in New Jersey in 1953.
10. A group of flycatchers is collectively known as a/an 'outfield'/'swatting'/'zapper' or 'zipper' of flycatchers.
11. These are the only eastern flycatcher species that build their nests in holes.
12. When on the ground, this bird seldom walks or hops.
13. Currently, it is estimated that around 7,500,000 Great Crested Flycatchers are left in the world.

Notable Species: NONE