

KENTUCKY WARBLER - OPORORNIS FORMOSUS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Parulidae Genus: Geothlypis
Species: G. formosa

Habitat:

Biomes: The Kentucky warbler is a scarce bird with a large range, frequenting moist deciduous forests.

Distribution:

In US: It is migratory, spending summer in the central and eastern United States, often ranging as far north as Wisconsin to Pennsylvania. Come fall and winter the Kentucky warbler will migrate back to the Yucatán Peninsula and the many islands of the Caribbean, flying non-stop across the Gulf of Mexico. In 2007, the Kentucky warbler was seen as far west as Farmington, New Mexico.

In Other Countries: NONE

Holistic Description: A bird of the deciduous forests of the southeastern United States, the Kentucky Warbler's loud song can be heard far more frequently than the brightly-colored bird can be seen. It stays near the ground and the lower levels of the forest, and nests on the ground.

Species Richness: NO SUBSPECIES

Population Dynamic: CHECK THREATS

Evolution and Systematics:

Evolution: NONE

Systematics: Preliminary analysis of measurements and color patterns from 314 museum specimens indicates no geographic variation. No subspecies, as Browning asserted that G. f. umbraticus, a supposedly paler subspecies from the northern part of the species' range, cannot be diagnosed from nominate G. formosa.

Number of Species: NO SUBSPECIES

Number of Genera: NO SUBSPECIES

Physical Characteristics:

Size and Length: Length: 5.1 in (13 cm) Weight: 0.5-0.5 oz (13-14 g)

Wingspan: 7.9-8.7 in (20-22 cm)

Coloration: They are mostly an olive-green in color on their back and nape, and a brilliant yellow below from their throat to their belly. They have a small tinge of black on their crown, and a large black mask with a yellow pattern that runs from the beak and encircles the eyes, resembling a pair of spectacles.

General Body Features: Small songbird. Underparts entirely yellow. Back olive green. Black "sideburns" down side of face and throat. Yellow eyestripe wrapping around back of eye to form spectacles. No wingbars or tail spots.

Special Features of the Body: NONE

Special Features of the Head and Sensory Organs: NONE

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: NONE

Any Special Internal Anatomy: NONE

Sexual Dimorphisms: Female Kentucky warblers have slightly less black on the sides of their head, and immature birds may have almost no black at all.

Differences Between Juvenile Stage and Adult: Immature like adult, but duller.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Males observed at all times of day during the breeding season preening, scratching head with legs, and stretching legs laterally. Often preen on a singing perch between song bouts, or even between songs during bouts. Scratch head and stretch between bouts on song perches, or elsewhere during non-singing periods. Females also preen during breeding season. Bathing and anting not reported.

Locomotion: Walks and hops on the ground. When foraging in low branches and vines, and on logs, moves with hops or short flights. When disturbed, brooding females sometime give distraction displays by running on the ground. Not known to climb. Flies in straight lines. Between song perches, males typically fly distances of 2–50 m at heights of 5–25 m.

Communication and Perception: Song a loud series of "chuuree" notes. Call a smacking "chip."

Home Range: Male and female adults are territorial on both breeding and wintering grounds, although males display more overt territorial behavior, especially during the first half of the breeding season. Breeding-ground territories function as nesting and foraging areas that pairs (or unmated males) occupy nearly exclusively through the breeding season, although

after fledging young may wander into neighboring territories and parents follow, often unchallenged (perhaps undetected) by neighbors. Territorial boundaries are established and defended by a male's singing, and by calling and aggressive displays such as crown-raising if challenged at close distance.

Degree of Sociality: Adults are generally solitary, except when nesting, although sometimes observed in late summer on breeding grounds in mixed flocks composed of adult and juvenile Tufted Titmice, Carolina Chickadees, and Worm-eating Warblers.

Level of Aggression: Males often chase each other early in the breeding season, but physical contact is rare. Chases may involve 2, 3, and rarely 4 males, and/or 1–2 females. Chases, interspersed with perched singing, muted singing at close range, and aggressive Chip Notes may last several minutes to all day, but seldom longer than 6 h. Typically, chasing birds fly in circles of 25–75 m, and in straight lines of 25–50 m within boundaries of an established territorial male, and cross boundaries if 2 neighboring males are involved.

Migration: NONE

Predators:

Predators: The source and intensity of predation on adults is not known, except for a few anecdotal reports—e.g., of a box turtle (*Terrapene carolina*) capturing an adult Kentucky Warbler (sex not reported) near a nest with eggs. Snakes and other “prowling predators” are known to rob nests. In n. Virginia, an estimated 60% of 87 nests are preyed on before fledging. At nests, brooding females (1 confirmed), eggs, and young are taken by predators, but almost always without direct evidence of identity of predator. Suspected or known nest predators in n. Virginia include feral cat (*Felis domesticus*), eastern chipmunk (*Tamias striatus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginianus*), red fox (*Vulpes fulva*), blue jay (*Cyanocitta cristata*), and American crow (*Corvus brachyrhynchos*).

Anti-Predator Defenses: When disturbed at a nest by humans (“predators”), male (and female, if she is already off nest) give relatively rapid, loud Chip Notes that may grade into more agitated, high-pitched Teep Calls if the disturbance continues and intensifies (e.g., predator moves to within 1 m of nest). Incubating or brooding females typically remain silent and motionless on the nest until humans approach within 2 m. When flushed, they often perform distraction displays consisting of walking rapidly in zigzag fashion on ground, dragging one or both wings, and uttering rapid, high-pitched twittering notes. No response noted in the presence of silent or vocalizing raptors.

Diet and Nutrition:

Adult Diet: Insects, caterpillars, and small spiders during breeding season; rarely seeds; in Mexico, may feed on *Cecropia* fruits.

Juvenile Diet: ^^^^^

Special Adaptations for Getting Prey: In breeding and wintering seasons, feeds alone on ground by rummaging through leaf litter, probing and tossing with its bill and also scratching with its feet. Also feeds in shrubs, vines, and lower parts of trees. In breeding season, may feed by gleaning and hawking insects from leaves and twigs of shrubs and trees.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Apparently monogamous; polygyny observed in Virginia.

Mating Season: March to May

Courtship: Typically, a female begins to remain near a persistently singing male, perhaps as early as the day of her arrival on breeding grounds. If present on a male's territory, female is usually found lower in vegetation or on the ground, beneath the male. During pair formation, males and females chase or follow each other by hopping or flying short distances low in vegetation, typically within an area of about 25–50 m². The recognizable locomotion patterns are often accompanied by loud and rapid chips uttered by both, and sometimes short songs given by female.

Territoriality: HOME RANGE

Mating: NONE

Nest Placement: Kentucky warblers nest on the ground hidden at the base of a shrub or in a patch of weeds in an area of ample vegetation. The female will lay between 3 and 6 eggs, which are white or cream-colored and speckled with brown. Incubation is done by the female only, and lasts for about 12 days. The young Kentucky warblers usually leave the nest about 10 days after hatching.

Nest Description: ^^^^^

Egg-Laying: Clutch Size: 3-6 eggs Number of Broods: 1-2 broods Egg Length: 0.7-0.8 in (1.77-2.05 cm) Egg Width: 0.6-0.6 in (1.42-1.55 cm) Incubation Period: 11-13 days Nestling Period: 8-9 days

Hatching and Incubation/Gestation: Altricial: naked except for sparse down, eyes closed, no visual response. Mass on day of hatching 2.5–3.5 g; 4.0–4.5 g by 1 d old. Color of bare parts: skin pinkish orange; bill blackish; corners of mouth yellow; lining of mouth orange; eyes closed, blackish through skin; egg tooth not present, or retained for <1 d. Eye-slit is 2 mm long.

Development: ^^^^^

Parental Care: Only female broods. Both parents feed young from day of hatching. Parents bring food to nest in their bills, and insert it into mouth of nestlings when they gape. Small nestlings are fed small insects and spiders, larger nestlings larger adult insects and caterpillars. No detailed studies on food of nestlings reported.

Lifespan: 6.9 YEARS

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Kentucky Warbler declined through much of its range between 1966 and 2014, and overall, numbers were down by about 36% during that time, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 2.8 million, with 100% spending part of the year in the U.S., and 22% in Mexico. The species rates a 14 out of 20 on the Continental Concern Score. Kentucky Warbler is a U.S.-Canada Stewardship species and is on the 2014 State of the Birds Watch List, which lists bird species that are at risk of becoming threatened or endangered without conservation action.

Conservation Efforts: ^^^^^

Extra Facts:

1. Unlike most songbirds, a male Kentucky Warbler appears to sing only one song type. He will sing the same one throughout his life. Although counter-singing males do not match each other's song types the way many bird species do, a male may match the pitch of a competitor's song.
2. The oldest recorded Kentucky Warbler was a female and at least 6 years, 11 months old when she was recaptured and rereleased during banding operations in Maryland.

Notable Species: NONE