

YELLOW WARBLER - DENDROICA PETECHIA

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Parulidae Genus: Setophaga
Species: S. petechia

Habitat:

Biomes: Yellow Warblers spend the breeding season in thickets and other disturbed or regrowing habitats, particularly along streams and wetlands. They are often found among willows but also live in dwarf birch stands in the tundra, among aspen trees in the Rockies, and along the edges of fields in the East, where you may find them among alder or dogwood as well as orchards, blueberry bogs, and overgrown power-line cuts. In the West they may occur up to about 9,000 feet elevation. On their wintering grounds Yellow Warblers live in mangrove forests, dry scrub, marshes, and forests, typically in lowlands but occasionally up to 8,500 feet elevation.

Distribution:

In US: Warblers are the most widespread species in the diverse genus Setophaga, breeding in almost the whole of North America and down to northern South America.

In Other Countries: ^^^^^^^^^^^

Holistic Description: North America has more than 50 species of warblers, but few combine brilliant color and easy viewing quite like the Yellow Warbler. In summer, the buttery yellow males sing their sweet whistled song from willows, wet thickets, and roadsides across almost all of North America. The females and immature aren't as bright, and lack the male's rich chestnut streaking, but their overall warm yellow tones, unmarked faces, and prominent black eyes help pick them out.

Species Richness: 35 SUBSPECIES

Population Dynamic: CHECK THREATS

Evolution and Systematics:

Evolution: NONE

Systematics: Geographic variation in plumage rather marked between groups, but subtle and clinal within groups. Morphometric analysis over range of species showed general trend toward larger size from north to south, although individuals from Caribbean region showed reverse trend.

Number of Species: 35 SUBSPECIES

Number of Genera: 35 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 4.7-5.1 in (12-13 cm) Weight: 0.3-0.4 oz (9-11 g)

Wingspan: 6.3-7.9 in (16-20 cm)

Coloration: Yellow Warblers are uniformly yellow birds. Males are a bright, egg-yolk yellow with reddish streaks on the underparts. Both sexes flash yellow patches in the tail. The face is unmarked, accentuating the large black eye.

General Body Features: Yellow Warblers are small, evenly proportioned songbirds with medium-length tails and rounded heads. For a warbler, the straight, thin bill is relatively large.

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: In other words, the same gene in yellow warblers from the driest places in the country had a slightly different DNA sequence than in birds from very wet places. This suggests there is an ideal genetic variant that is matched to the environment—these birds had adapted to their local climates.

Sexual Dimorphisms: Male Yellow Warbler in Definitive Alternate plumage has face, throat, and remaining underparts bright yellow, variably streaked with chestnut below throat; upperparts yellow-green to olive with wing feathers edged yellow; dark eye stands out on relatively unmarked face; appears rather short-tailed and has yellow tail spots. Definitive Alternate female similar to male but less boldly marked, with reduced chestnut streaking on underparts.

Differences Between Juvenile Stage and Adult: Immatures duller than adult of their sex and more greenish, streaking on underparts reduced or lacking, whitish or pale yellowish eye-ring.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Yellow Warblers forage along slender branches of shrubs and small trees, picking off insect prey as they go or briefly hovering to get at prey on leaves. Singing males perch near the tops of the bushes or trees in their territory. As male Yellow Warblers are setting up territories they may perform a "circle flight" in which they fly toward a neighboring male or

female in a horizontal, semicircular path. A male may also fly slowly with fast, exaggerated wingbeats away from a female he is courting or a male he is competing with. As these territorial encounters proceed, males start by singing at each other; as the dispute goes on, the songs get quieter or switch to chip notes as the males begin to chase each other. Yellow Warblers typically form monogamous pairs that sometimes last more than one breeding season and reform the next. Yellow Warblers defend their nesting territories from many species, including other warbler species, chickadees, House Wrens, blackbirds, and Eastern Kingbirds. They may even chase off other warbler species while on their wintering grounds. Common predators of Yellow Warbler nests include garter snakes, red squirrels, jays, crows, raccoons, weasels, skunks, and domestic or feral cats.

Locomotion: Does not walk; hops on branches, etc., probably hops on ground.

Communication and Perception: Males sing a sweet series of 6–10 whistled notes that accelerate over the course of the roughly 1-second song and often end on a rising note. The tone is so sweet that people often remember it with the mnemonic sweet sweet sweet I'm so sweet. The songs are a common sound of spring and early summer mornings and may be repeated as often as 10 times per minute.

Home Range: On breeding grounds, Yellow Warblers defend multipurpose territories. Territory interactions are dynamic and continue throughout the breeding season; thus, overlaps of used areas and small shifts in boundaries are not rare. Territories established as soon as males arrive.

Degree of Sociality: Territorial in breeding season; many individuals territorial on wintering grounds. During migration found in single- and mixed-species flocks.

Level of Aggression: Fighting encounters between males observed in which birds hit each other and may sometimes grapple ("lock") together. Of 49 nonvocal encounters by unmated males, 12 included fighting. Male flies from perch towards neighboring male or female at territory boundary, then turns away; flight path horizontal and semicircular; performed early season during territory establishment. Of 49 nonvocal encounters by unmated males, 16 included circle flights.

Migration: Long distance migrant. Yellow Warblers breed across central and northern North America and spend winters in Central America and northern South America. They migrate earlier than most other warblers in both spring and fall. Like many other migrating songbirds, Yellow Warblers from eastern North America fly across the Gulf of Mexico in a single nonstop journey; some Yellow Warblers in fall take an overland route around the Gulf.

Predators:

Predators: Long-tailed Weasel, Garter Snake, Red Squirrel, Blue Jay, Raccoon, Blue Racer, Weasel, Red Fox, Arctic Fox, Gray Jay, American Crow, Striped Skunk, Domestic Cat.

Anti-Predator Defenses: . Twice observed to join mixed species flock mobbing mount of Great Horned Owl. For 86 presentations of rubber snakes at 27 warbler nests, females gave "agitated vocalizations" and were quickly joined by males. Females commonly responded with distraction displays in front of snake; other details not given. Responses to models same as response observed to live black rat snake.

Diet and Nutrition:

Adult Diet: Yellow Warblers eat mostly insects that they pick from foliage or capture on short flights or while hovering to reach leaves. Typical prey include midges, caterpillars, beetles, leafhoppers and other bugs, and wasps.

Juvenile Diet: ^^^^^^^

Special Adaptations for Getting Prey: Captures insects by gleaning (picking food from a surface while perched), sallying (flying out after airborne prey) or hovering (picking food from a surface while in flight).

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Primarily monogamous, but occasional polygynous matings.

Mating Season: April to May

Courtship: Males initially exhibit Chase behavior toward females around territory; Chase frequency decreases over 2–4 d; males also perform Moth-Flight, Tail-spread, and Wing-out during interactions with females; Zeep and Chip calls apparently serve as contact calls; copulation occurs near end of nest building.

Territoriality: HOME RANGE

Mating: NONE

Nest Placement: Yellow Warblers build their nests in the vertical fork of a bush or small tree such as willow, hawthorn, raspberry, white cedar, dogwood, and honeysuckle. The nest is typically within about 10 feet of the ground but occasionally up to about 40 feet.

Nest Description: The female builds the nest over a period of about 4 days. First she builds a cup of grasses, bark strips, and plants such as nettles. She places plant fibers, spiderwebs, and plant down around the outside. The inner cup is lined with deer hair, feathers, and fibers from cottonwood, dandelion, willow, and cattail seeds. If a cowbird lays its eggs in a Yellow

Warbler's nest, the warbler often begins building a new nest directly on top of the old one, abandoning both its own eggs and the cowbird's.

Egg-Laying: Clutch Size: 1-7 eggs Number of Broods: 1-2 broods Egg Length: 0.6-0.8 in (1.5-2.1 cm) Egg Width: 0.5-0.6 in (1.2-1.6 cm) Incubation Period: 10-13 days Nestling Period: 9-12 days Egg Description: Grayish or greenish white with dark spots.

Hatching and Incubation/Gestation: Helpless, with light-gray down, weighing about 1/20 of an ounce.

Development: Altricial and nidicolous. At hatching, $1.32 \text{ g} \pm 0.21 \text{ SD}$.

Parental Care: Which young is fed by adults determined more by height reached by begging chicks—not simply nestling size, begging intensity, or species, even in nests with Brown-headed Cowbird young. At one nest in nw. Iowa observed entire nestling period (144 h 53 min), male made 813 feeding visits (first 7 d only) and female 1,560 visits.

Lifespan: 11 years old.

Conservation:

Official Federal Status: Least Concern

Special Statutes in Individual States: NONE

Threats: Yellow Warblers are one of the most numerous warblers in North America but their populations have been slowly declining, and have decreased by 25% between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 90 million with 37% spending some part of the year in the U.S., 15% in Mexico, and 57% breeding in Canada. They rate a 6 out of 20 on the Continental Concern Score and are not on the 2014 State of the Birds Watch List. In the western U.S. the grazing of rangelands can degrade Yellow Warbler nesting habitat, particularly stands of willow trees along creeks. The Brown-headed Cowbird lays its eggs in the nests of many species including Yellow Warblers, and this can reduce their breeding success. Like many migratory songbirds that move at night, Yellow Warblers are at risk of collisions with buildings; they can be attracted to and killed at tall, lighted structures such as TV towers and tall buildings.

Conservation Efforts: ^^^^^^^^

Extra Facts:

1. In addition to the migratory form of the Yellow Warbler that breeds in North America, several other resident forms can be found in Mexico, Central America, and the Caribbean. Males in these populations can have chestnut caps or even chestnut covering the entire head.
2. The nests of the Yellow Warbler are frequently parasitized by the Brown-headed Cowbird. The warbler often builds a new nest directly on top of the parasitized one, sometimes resulting in nests with up to six tiers.
3. Life can be dangerous for a small bird. Yellow Warblers have occasionally been found caught in the strands of an orb weaver spider's web.
4. The oldest-known Yellow Warbler was a female, and was at least 11 years old when she was recaptured and rereleased during banding operations in New York.

Notable Species: NONE, USE NOMINATE.