# **OVENBIRD - SEIURUS AUROCAPILLA**

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Parulidae Genus: Seiurus

Species: S. aurocapilla

Habitat:

<u>Biomes</u>: Ovenbirds breed in large, mature broadleaf or mixed forests from the Mid-Atlantic states to northeastern British Columbia. They set up summer territories where the leaf canopy overhead inhibits underbrush and provides deep leaf litter hosting plenty of invertebrates. Extensive, uninterrupted forests with relatively closed canopies 50 to 70 feet above the ground seem ideal. Even fairly large forest patches of 250 to 2,000 acres may not be able to support Ovenbird populations unless larger forests are close by. Ovenbirds are less picky about their winter habitats. They avoid open fields and cultivated areas, but where mature forests are unavailable, they can live and feed among shade coffee trees or mangroves, on dry scrubland or regenerating agricultural land, and in moist upland or dry lowland forests. They still favor leaf litter for hunting invertebrates, but they can forage in grasses or on rocks or mud near water.

### Distribution:

<u>In US</u>: Their breeding habitats are mature deciduous and mixed forests, especially sites with little undergrowth, across Canada and the eastern United States. For foraging, it prefers woodland with abundant undergrowth of shrubs; essentially, it thrives best in a mix of primary and secondary forest. Ovenbirds migrate to the southeastern United States, the Caribbean, and from Mexico to northern South America.

In Other Countries: NONE

<u>Holistic Description</u>: The Ovenbird's rapid-fire teacher-teacher-teacher song rings out in summer hardwood forests from the Mid-Atlantic states to northeastern British Columbia. It's so loud that it may come as a surprise to find this inconspicuous warbler strutting like a tiny chicken across the dim forest floor. Its olive-brown back and spotted breast are excellent disguise as it gleans invertebrates from the leaf litter. Its nest, a leaf-covered dome resembling an old-fashioned outdoor oven, gives the Ovenbird its name.

<u>Species Richness</u>: 3 SUBSPECIES <u>Population Dynamic</u>: CHECK THREATS

## **Evolution and Systematics**:

**Evolution**: Holocene (10,000 years before present) records for this species are from cave deposits in Illinois, Bahamas, and the Dominican Republic.

<u>Systematics</u>: Dorsal color pales from east to west, becoming grayer (less green) from the Atlantic coast to the Rocky Mountains; also may be a tendency toward a grayer mantle. Birds of Newfoundland are darker, a pattern in common with numerous other passerine species. Size varies little.

<u>Number of Species</u>: 3 SUBSPECIES <u>Number of Genera</u>: 3 SUBSPECIES

**Physical Characteristics**:

Size and Length: 4.3-5.5 in (11-14 cm) Weight: 0.6-1.0 oz (16-28 g)

*Wingspan*: 7.5-10.2 in (19-26 cm)

<u>Coloration</u>: Ovenbirds are olive-green above and spotted below, with bold black-and-orange crown stripes. A white eyering gives it a somewhat surprised expression. Like several other terrestrial, or near-terrestrial, warblers, Ovenbirds have pink legs.

<u>General Body Features</u>: The Ovenbird is a chunky, larger-than-average warbler, but still smaller than a Song Sparrow. It has a round head, fairly thick bill for a warbler, and a jaunty tail often cocked upward.

**Special Features of the Body**: NONE

Special Features of the Head and Sensory Organs: NONE

<u>Dentition</u>: BEAK/LAMELLAE/GIZZARD <u>Special Features of the Limbs and Digits</u>: NONE

<u>Any Special Internal Anatomy</u>: NONE <u>Sexual Dimorphisms</u>: Sexes identical.

<u>Differences Between Juvenile Stage and Adult</u>: Head, neck and upperside cinnamon brown, the lateral stripes faintly present on crown; scapulars and back with indistinct darker streaks; upperwing and tail similar to adults but median and greater secondary coverts tipped pale cinnamon forming indistinct wingbars; tertials tipped cinnamon; underparts pale cinnamon with faint olive brown streaks on sides; abdomen and undertail coverts tinged yellowish white.

Behavior:

### Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Male Ovenbirds establish late-spring territories in vigorous, prolonged encounters with other males. They vocalize loudly and chase competitors, but rarely make physical contact. Males defend established territories primarily by singing from perches in the low canopy. A pair bond between a male and female starts on the breeding ground and ends when the young fledge. Only the female sits on the eggs and broods the chicks, but both male and female feed them. They walk through forest floor leaf litter, gleaning and probing for invertebrate food. When predators approach a territory, both males and females may utter alarm calls and give chase. If a predator approaches a female on the nest, she sits tight until the last moment, then tries to lead the predator away by feigning injury. By day 8, the chicks leave the nest one at a time, with several hours between the first and last. As they run and hop away from the nest, the parents split the brood. The male keeps his young within the territory, and the female leads hers to an adjacent area. Females feeding young in neighboring territories are not harassed. The chicks need several more days to begin to fly, and don't become independent until around day 30. Immature Ovenbirds spend time feeding and "playfully chasing" other immature birds, who may or may not be from the same brood. They remain on the breeding grounds until after adult males and females have started their separate migrations in the fall, then they too set off. Ovenbirds seem largely solitary on the winter grounds.

<u>Locomotion</u>: Usually walk on ground rather than hop, run, or fly. Tail not bobbed up and down as waterthrushes do, but is often pumped in a wave-like fashion as Hermit Thrushes. Low, firm, and steady. Maneuvers quickly around tree trunks and swoops from ground level to a canopy song perch.

Communication and Perception: The primary mating and territorial song of the male Ovenbird is a rapid, resounding tea-cher, Tea-cher, TEA-cher growing louder over the first few repetitions, with 8 to 13 teacher phrases in all. Pitch, speed, and emphasis of syllables in the 2.5–4 second song vary among individuals. To our ears, some may sound more like tea-tea-tea, and others more like teachier, teachier. Males use a shorter song during chases, attacks, and copulation attempts. This song is longer and more varied, starting with a series of short notes, followed by a complex ramble of teacher phrases and ple-bleep notes. Males also give a distinctive flight song at dusk that differs from the typical song, though includes a few 'teacher' phrases in it.

*Home Range*: While Ovenbirds are thought to be territorial on the wintering grounds, there is no information available on individual spacing. During the breeding season, boundaries of clusters of territories are known to be separated by 18.3 m. In spring, territories are established by males immediately upon arrival on the breeding grounds. These are used for courtship, mating, nesting, and feeding for adults and young.

<u>Degree of Sociality</u>: Degree of sociality during migration unknown. Available information suggests solitary behavior on the wintering grounds. Some evidence that conspecific attraction may lead to clusters of territories. Territory aggregation was linked to aggregation of ground cover and percent deciduous cover at the scale of 250 m but was not explained by habitat at the scale of 450 and 550 m.

<u>Level of Aggression</u>: As boundaries of territories are being established, encounters between males are vigorous and prolonged. Chasing and vocalizing are primary methods used to ward off intruders. Physical contact is rare, and no injuries reported.

<u>Migration</u>: Long-distance migrant. Ovenbirds breeding east of the Appalachians overwinter in Florida and the Caribbean, while those breeding further west fly to Mexico and Central America.

#### **Predators**:

<u>Predators</u>: Egg predators include various snakes, Blue Jays (Cyanocitta cristata), and Brown-headed Cowbirds (Molothrus ater). Predators on eggs and young are red squirrel (Tamiasciurus hudsonicus), eastern gray squirrel (Sciurus carolinensis), raccoon (Procyon lotor), striped skunk (Mephitis mephitis), and weasels (Mustela sp.). Known predators on young and adults include Barred Owls (Strix varia) and Broad-winged Hawks. Other suspected but unconfirmed predators include American Crow (Corvus brachyrhynchos), Common Grackle (Quiscalus quiscula), opossum (Didelphis virginiana), red fox (Vulpes vulpes), and domestic cat.

<u>Anti-Predator Defenses</u>: Males fly at females and/or give an alarm call as a warning of approaching danger. Male and female observed chasing predators with their mouths open and flying at predators. Hann also described his hand being pecked by a female while examining her nest.

## **Diet and Nutrition**:

<u>Adult Diet</u>: Ovenbirds eat mainly forest insects and other invertebrates: a range of adult beetles and larvae, ants, caterpillars, flies, and other insects. Most of these are hunted in leaf litter, some on leaves, and a few on bark or in the air. Parents feed ground beetles and larvae to nestlings. Ovenbirds can alter their feeding habits to forage in trees and shrubs in response to a novel food source, like an outbreak of spruce budworms. In winter habitats, Ovenbirds' food flexibility matches their habitat

flexibility. They may add seeds to their diets and specialize in locally abundant prey like ants. They may also hunt insects and grubs in short grasslands or on rocks and mud near water.

Juvenile Diet: ^^^^^

<u>Special Adaptations for Getting Prey</u>: Ovenbird hunting behavior in patchy environments has been intensely studied by enclosure experiments in a natural setting. Ovenbirds search in response to prey densities, learning high-prey patch locations and repeatedly visiting those sites. They do not significantly deplete local invertebrate abundance during the course of the breeding season, yet the most recently exploited areas are avoided,

## Reproduction:

**Mode of Reproduction**: Monogamous

<u>Mating System</u>: All information in this section, unless cited otherwise, derived from Hann. Chiefly monogamous, but polyandry and polygyny recorded. Detailed information on sex ratios unavailable.

**Mating Season**: April to May

*Courtship*: Courting performances and pre- and post-copulatory displays not described. Copulation takes place during nest building and egg laying periods on the ground, and occasionally, in trees. Ground copulations, while complaisant for both sexes, appear to be a struggle. When the male dismounts he usually flies to a nearby perch and the female shakes as if smoothing her feathers and then proceeds with daily activities.

**Territoriality**: HOME RANGE

<u>Mating</u>: During copulation from a perch in a tree, the male mounts and dismounts quickly and may perch on the female's crest prior to copulation.

<u>Nest Placement</u>: The female Ovenbird builds a nest in thick leaf litter on the open forest floor at least 60 or 70 feet from the forest edge. She chooses a spot under or near a small break in the canopy, often near where a tree has fallen or near regrowth from some other disturbance.

<u>Nest Description</u>: The female clears a circular spot in forest floor litter and over the next 5 days weaves a domed nest of dead leaves, grasses, stems, bark, and hair. The nest's squat oval side entrance is hidden from above and generally faces downhill if the nest is built on a slope. The inner cup is just 3 inches across and 2 inches deep, lined with deer or horse hair. The outer dome, camouflaged with leaves and small sticks, may be up to 9 inches across and 5 inches high. Its resemblance to an outdoor bread oven with a side opening gives the Ovenbird its name.

*Egg-Laying*: Clutch Size: 3-6 eggs Number of Broods: 1-2 broods Egg Length: 0.8-0.9 in (1.9-2.2 cm) Egg Width: 0.6-0.6 in (1.4-1.6 cm) Incubation Period: 11-14 days Nestling Period: 7-10 days Egg Description: White with reddish-brown spots and speckles.

<u>Hatching and Incubation/Gestation</u>: Helpless, covered in dark gray to pale brown down, with eyes closed but mouths opening in response to noise.

<u>Development</u>: Altricial, average mass 2.1 g, range 1.46–2.29 g. Linear measurements unavailable. Coloration of natal down described as dark gray by Hann and pale sepia brown by Dwight. Natal down distributed as follows

<u>Parental Care</u>: The female alone broods the hatchlings, with a rhythm similar to that used while incubating. Both parents feed young at the nest. The relative amount of feeding done by the male and female parent varies by pair, and by stage of nestling development. Males usually feed more at first, because the females spend most of their time brooding. During the later part of the nestling period, males and females feed about the same amount.

*Lifespan*: 11 years **Conservation**:

<u>Official Federal Status</u>: Least Concern Special Statuses in Individual States: NONE

Threats: Ovenbirds are numerous and their populations were stable or slightly increased overall between 1966 and 2014, according to the North American Breeding Bird Survey. Partners in Flight estimates the global breeding population at 22 million with 66% spending some part of the year in the U.S., 48% in Mexico, and 66% breeding in Canada. The species rates a 9 out of 20 on the Continental Concern Score. Ovenbird is not on the 2014 State of the Birds Watch List. These birds are sensitive to forest fragmentation and to disruption by industrial noise, forest road-building, and logging. Their ability to establish territories and breed successfully depends on the continued existence of large, undisturbed mature broadleaf and mixed forests. When Dutch elm disease spread through Minnesota forests, dying trees let more light filter to the forest floor and increased vegetation there; Ovenbird numbers declined. Forest fragmentation also increases Ovenbirds' vulnerability to nest parasitism by Brown-headed Cowbirds. Ovenbirds do not recognize cowbirds or their eggs as intruders. Ovenbird eggs are eaten by snakes, Blue Jays, and Brown-headed Cowbirds. Red squirrels, eastern gray squirrels, raccoons, skunks, and weasels all take Ovenbird eggs and young. At least one study points to chipmunks as prime predators of the young. Barred

Owls and Broad-winged Hawks prey on young and adult Ovenbirds alike. Ovenbirds migrate with storm fronts on their spring and fall migration routes. Large numbers are sometimes killed as they collide with towers and tall buildings along the paths of these fronts.

Conservation Efforts: ^^^^^

### Extra Facts:

- 1. On its breeding ground, the Ovenbird divides up the forest environment with the other warblers of the forest floor. The Ovenbird uses the uplands and moderately sloped areas, the Worm-eating Warbler uses the steep slopes, and the Louisiana Waterthrush and the Kentucky Warbler use the low-lying areas.
- 2. The Ovenbird gets its name from its covered nest. The dome and side entrance make it resemble a Dutch oven.
- 3. The Ovenbird female weaves the cup, side entrance, and roof of her domed nest from the inside as a single, integrated piece. Then she drops leaves and twigs on top to hide it. If the chicks inadvertently dismantle the dome as they grow, the female ignores the damage.
- 4. The Ovenbird's very loud song has attracted attention for years. Robert Frost's 1916 poem "The Oven Bird" begins, "There is a singer everyone has heard, / Loud, a midsummer and a mid-wood bird, / Who makes the solid tree trunks sound again."
- 5. The Ovenbird chants 4 to 6 of its song's tea-cher phrases per second. Each tea-cher is made up of 3 to 5 separate notes. The number of notes in each part of the phrase and how they're sung are highly variable from individual to individual. Our ears have trouble distinguishing all of the notes, but Ovenbirds recognize each other's songs as unique calling cards.
- 6. Neighboring male Ovenbirds sing together. One male starts singing, and the second will join in immediately after. They pause, and then sing one after the other again, for up to 40 songs. The second joins in so quickly that they may sound from a distance as if only one bird is singing. Ovenbirds rarely overlap the song of their neighbors.
- 7. The Ovenbird's abundance, wide distribution, and relative ease of observation have made it a model songbird in scientific studies for nearly a century. Ovenbird studies have helped scientists understand the effects of logging and habitat fragmentation on migrating songbirds.
- 8. The oldest known Ovenbird was at least 11 years old when it was recaught and rereleased in Connecticut, the same state where it had been banded as a young bird.

**Notable Species**: NONE