Oporornis agilis A Wilson — Connecticut warbler

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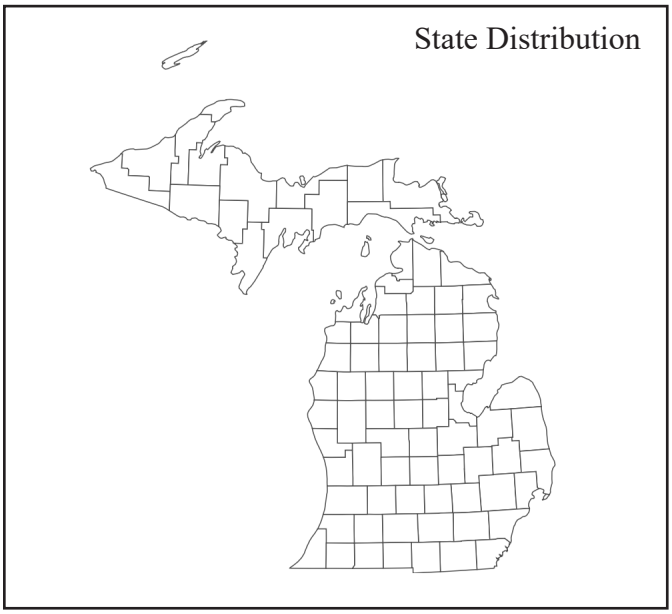
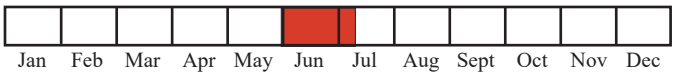


Best Survey Period



Status: State special concern

Global and state rank: G4G5/S3

Family: Parulidae

Total Range: Breeds across Canada, from the northeastern portion of British Columbia in the west to southern Quebec in the east. Southern portions of its range reach into northern Minnesota, Wisconsin and Michigan. Winters in South America along the edges of the Amazon Basin, particularly in Brazil and Bolivia, but also potentially in Columbia, Venezuela and Peru. Due to the remote areas it inhabits, the full extent of the range of this species is still being established. (DeGraaf and Rappole 1995, Pitocchelli et al. 2023)

State Distribution: During the breeding season, found locally throughout the Upper Peninsula and in a few of the most northern counties of the Lower Peninsula. Also passes through the state during spring and fall migration. (Reinoehl 2013)

Recognition: A **large** warbler measuring 5-6 inches in length (13-15 cm). **Olive above** and **yellow beneath**, males brighter than females. **Males** have a **blue-grey hood**, while **females** have a **grey-brown hood**. All individuals have a **bold, complete, white eye-ring**. First year birds resemble dull adult females. Spends most of its time on or **near the ground**. Walks rather than hops. In Michigan, the most similar species is the mourning warbler (*Geothlypis philadelphia)*. The Connecticut warbler is generally larger and stockier than the mourning warbler. While the mourning warbler may sometimes have a white eye-ring, it will never be as thick or complete as that of the Connecticut warbler. Male mourning warblers also have a clear patch of black on their breast, which will only be dark grey or mottled on the Connecticut warbler. (National Geographic Society 1999, Pitocchelli et al. 2023)

Best survey time/phenology: While the Connecticut warbler is most frequently reported in Michigan during the month of May, most of these individuals are migrating through to more northern parts of the breeding range. Egg laying occurs in Michigan during the first several weeks of June, making the month of June the best time to survey for breeding birds. Michigan breeders depart for the winter in

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late August, and more northern migrants can be seen passing through as late as mid-October. (Reinoehl 2013, Pitocchelli et al. 2023, eBird 2025)

Habitat: In the Great Lakes area, Connecticut warblers breed in upland and lowland conifer forests (Lapin 2010). They have affinity for black spruce and tamarack (Zlonis et al. 2017) but can also be found in jack pine barens (Reinoehl 2013). Connecticut warblers require a well-developed shrub layer for nesting (Hobson and Schieck 1999, Grinde et al. 2023) and are more likely to be found in larger patches of suitable habitat (Lapin 2013). Winter habitat is not well known, but has generally been described as woodland, forest edges and undergrowth (Pitocchelli et al. 2023).

Biology: Connecticut warblers are late migrants, arriving on their breeding grounds in Michigan at the end of May or early June (Kudell-Ekstrum 2002). Males are highly territorial, singing loudly, sometimes from the same tree for several consecutive hours (Pitocchelli et al. 2023).

Little is known about the process of nest site selection or construction (Pitocchelli et al. 2023). Nests are located on the ground, in dense undergrowth or thickets (Baicich and Harrison 1997). They may be built at the base of shrubs, on mossy hummocks, or atop a mound of dead leaves and other debris (Walkinshaw and Dyer 1961). The nest itself is a cup, made of grasses, rootlets, and hairs with finer materials forming a lining (Baicich and Harrison 1997).

Connecticut warblers lay 3-5 eggs, and only the female incubates (Kudell-Ekstrum 2002). The incubation period is not well studied but may be approximately 11 days (Pitocchelli et al. 2023). The length of time between hatching and fledging is also unknown, but some observations from Minnesota suggest it is between 7 and 10 days (Grinde et al. 2023). Both adults provide parental care during the nestling stage and after fledging (Baicich and Harrison 1997). Families remain together for at least two weeks post fledging (Pitocchelli et al. 2023).

The Connecticut warbler forages for arthropods on or near the ground in thick undergrowth (Kudell-Ekstrum 2002). During the breeding season, they will eat eggs, larvae or adult insects and spiders (Pitocchelli et al. 2023). They sometimes eat small fruits or seeds (Kudell-Ekstrum 2002). Diet during migration and winter have not yet been studied (Pitocchelli et al. 2023).

Conservation/management: The Michigan Breeding Bird Atlas (MBBA) and the Breeding Bird Survey (BBS) have detected declining trends in populations of Connecticut warblers, though these trends are difficult to interpret due to small sample sizes and lack of effort in appropriate habitats (Pitocchelli et al. 2020). However, recent surveys in Wisconsin show a steep decline which Michigan is likely also experiencing (Brady et al. 2022). It is likely that habitat loss in the breeding grounds is a driving factor in these trends (Hallworth et al. 2021). Climate change is likely to cause additional loss of breeding habitat, particularly in Michigan which is at the southern edge of the breeding range (Hoving et al. 2013).

Current conservation practices have revolved around preservation of habitat (Pitocchelli et al. 2020). However, a lack of detections in presumably suitable habitat suggests that there are additional factors limiting the Connecticut warbler population (Brady et al. 2022). One known threat to Connecticut warblers is collisions with buildings and other infrastructure, for which it is at above average risk (Pitocchelli et al. 2020). Habitat loss in the wintering grounds may also be contributing to observed declines, but the lack of information about this species winter range and habitat makes that difficult to confirm (Brady et al. 2022).

Comments: The common name Connecticut warbler is somewhat misleading, as the species does not breed or overwinter there. It was first collected as a fall migrant and named for the location of that first collection.

Research needs: Basic information about the life history of the Connecticut warbler is still unknown. In the breeding range, important areas for future research include nest site selection, breeding success, predation rates and causes, impacts of brood parasitism, and timing of fledging. Since the Connecticut warbler uses distinct habitats across its range (jack pine barens and conifer forests in the eastern portions and aspen forests in the west), these traits may vary across the breeding range. The impacts of habitat and land-use variables at multiple scales may also be important in informing conservation priorities. In the wintering grounds, habitat characteristics, diet and range need additional study. (Pitocchelli et al. 2020, Brady et al. 2022)

Related abstracts: Muskeg, poor conifer swamp, pine barrens, black-backed woodpecker, incurvate emerald dragonfly, red-disked alpine butterfly, spruce grouse, Kirtland's warbler, Hill's thistle, black crowberry, small-flowered wood rush

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Abstract citation

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