

Nova Scotia Species At Risk Beneficial Management Practices Series

Version 1, November 2021

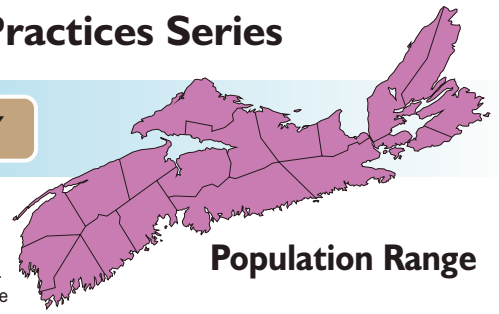
Canada Warbler

Cardellina canadensis

STATUS

Threatened 
Endangered 

FORESTRY



Occurs throughout Nova Scotia. Winters in Venezuela, Columbia, Ecuador, Peru and Brazil. Declined by 85% over the last 40 years.



Adult male with a visible necklace of black streaks across the breast

SPECIES DESCRIPTION

- The Canada Warbler is a small songbird (12-15 cm long) with a thin pointed bill.
- Males and females have bluish-grey upperparts, black markings on the head, and a prominent necklace of black streaks across the yellow breast. On females and juveniles, these markings are less distinct, and juveniles are duller in colour in comparison to adults.
- The Canada Warbler primarily feeds on insects, including beetles, mosquitoes, flies, moths, caterpillars and spiders.

HABITAT DESCRIPTION

- Found in moist/wet forests with a broken canopy and well-developed deciduous shrub layer.
- In Nova Scotia, most often found in swamps with red maple, spruce, cinnamon fern, and sphagnum moss.
- Breeds in Nova Scotia from late May to mid-August.
- Nests are well-concealed by vegetation, placed on uneven forest floors, among downed woody material (logs, branches, stumps, and root masses) covering >10% of the ground.

THREATS

- Overwintering and breeding habitat loss and degradation due to urban development, agriculture, forestry, and wetland drainage.
- Habitat fragmentation caused by forestry activities and road development.
- Over-browsing of the understory, reducing cover needed for nesting.
- Reduced availability of insect prey.
- Collisions with windows and vehicles.



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Adult female



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An example of suitable breeding habitat for Canada Warbler

KEY TERMS

Habitat fragmentation:

Habitat fragmentation is the process during which a large expanse is transformed into a number of smaller patches of smaller total area separated from each other. Fragmentation also leads to an increase in the proportion of habitat edges in relation to total area.

Wetland hydrology:

Wetland hydrology is the science of how water moves into and out of a wetland. These processes can take place on the surface or underground. For example, forests help slow-down the movement of surface water from rain or snowmelt, which allows the water to absorb into the soil and prevent erosion.

HOW YOU CAN HELP (BENEFICIAL PRACTICES)

- Learn to identify Canada Warbler and report all observations (see “Report Sightings”).
- To reduce risks to breeding Canada Warbler and their nests, avoid harvesting and silvicultural activities during the nesting season (June 1-August 15), if possible.
- Learn to recognize preferred habitat for Canada Warbler on your property. Forested wetlands may not have visible water, but will have water-saturated soils and wetland adapted plants like sphagnum moss. Mark these areas so that activities can be planned around them.
- Minimize compaction of soil and removal of ground vegetation, moss cover, downed woody material, stumps, hummocks, and root masses of ferns and trees. These are important habitat features that are used to conceal nests and offer protection to nesting birds.
- Harvest on frozen ground to minimize rutting and compaction which negatively impacts soil health and can alter hydrology.
- Avoid harvesting or road building activities within wetlands and wet forest sites. If possible, leave a buffer of at least 50 metres around wetland edges.
- Avoid activities that will alter wetland hydrology. For more guidance on this topic, see “Resource Roads and Wetlands: A Guide for Planning, Construction and Maintenance.”
<https://boreal.ducks.ca/publications/resource-roads-and-wetlands-a-guide-for-planning-construction-and-maintenance/>
- If possible, use uneven aged management systems. Retain some mid-story trees scattered within openings. An uneven forest stand is one that has intermingling trees that differ markedly in age. An uneven-aged stand contains at least three well-defined age classes.
- Plan blocks to minimize the amount of edge created which helps reduce “edge effects” such as nest predation.
- Maintain a mix of hardwoods and softwoods at stand and landscape levels by allowing natural regeneration and limiting hardwood herbicide use on softwood sites.
- Implement thinning and/or crop-tree release after the stand height exceeds 4.5-6 metres to open the canopy and enhance understory structure.
- In harvest areas >1 hectare, retain trees that can be used as singing/visual display centres. This can be done by retaining at least 12 standing trees/hectare that reach at least 1 m above the sub-canopy and range from large saplings to trees <15 metres in height. These display centres can be dispersed individually or grouped in 5-10 clumps (depending on conditions and tree species), with at least 4.5 metres of space between them.
- Protect patches of advanced regeneration and woody material by minimizing travel within harvest blocks and maximizing trails pacing and machine reach. Patches of about 0.1-0.2 hectares can mature into future territory cores.
- If practical, leave tree tops and limbs on site to enhance woody debris and forest floor structure.
- Limit beaver trapping where they are not damaging roads or high value timber, as they create irregular wet habitats used by Canada Warblers.
- To learn more about reducing risk to migratory birds review Environment and Climate Change Canada's “Guidelines to reduce risk to migratory birds.”
- Avoid or limit the use of pesticides that may negatively affect non-pest



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Examples of suitable breeding habitat for Canada Warbler

TO LEARN MORE

To learn more about the Canada Warbler or other species at risk view the **Species at Risk in Nova Scotia, Identification and Information Guide** available online at <http://www.sarguide.speciesatrisk.ca>

Landbird species at risk in forested wetlands website: <http://landbirdsar.merseytobeatic.ca/>

Additional Resources for woodlots with Canada Warbler:

[Westwood, A., C. Harding, L. Reitsma, & D. Lambert. \(2017\). Guidelines for Managing Canada Warbler Habitat in the Atlantic Northern Forest of Canada. High Branch Conservation Services, Hartland, VT.](#)

[Lambert, D., & S. Fraccio. \(2005\). Canada Warbler Population Status, Habitat Use, and Stewardship Guidelines for Northeastern Forests. VINS. Woodstock, VT.](#)

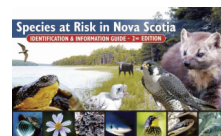
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This project was undertaken with the financial support of:
Ce projet a été réalisé avec l'appui financier de :



Environment and
Climate Change Canada

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Changement climatique Canada



REPORT SIGHTINGS

When possible, report any of your observations of species at risk. Details such as time, date, location (Geographic or UTM coordinates) as well as photos are valuable additions to all reports.

Contact: 1-866-727-3447, sightings@speciesatrisk.ca AND the Nova Scotia Department of Natural Resources and Renewables, biodiversity@novascotia.ca.

Project Partners:

