

Field Guide to Managing Canada Warbler (*Cardellina canadensis*) Habitat

Companion to *Guidelines for Managing Canada Warbler Habitat in Atlantic Canada**

Status: Federally listed as Threatened in Canada, Likely to Be Designated As Threatened or Vulnerable in Québec, Threatened in New Brunswick, and Endangered in Nova Scotia.

Habitats: Moist-to-wet deciduous, coniferous, and mixed forests with thick understory and open or broken canopy, including swamps, treed bogs, shrub thickets, riparian forests, bushy ravines, young forests, and tree-fall gaps

Special requirements: Complex forest floor, leafy subcanopy with trees 1.5-5 m high, open and elevated perch sites for singing

Territory size: Typically 1-2 ha, ranging between 0.2 and 3 ha

Diet: Primarily mosquitoes, flies, moths, and caterpillars captured by flycatching, gleaning, and hover gleaning

Nest: On or near the ground, hidden in mossy hummocks, or beneath root masses, down wood, base of large wet forest fern species, and clumps of grass

Associated species: Varies geographically, including: Black-and-White Warbler, Magnolia Warbler, Northern Waterthrush, Olive-sided Flycatcher, Rusty Blackbird, Veery, Canada Lynx, Wood Turtle, and others

Recommended Forest Management Practices: When conducted in the appropriate context, some methods of timber harvesting can enhance habitat quality for Canada Warblers and associated species. However, conservation benefits through timber harvesting may be low in areas where suitable habitat occurs naturally, especially in areas where the potential to introduce invasive species through such activities presents a significant threat. For more discussion of where to create and sustain habitat, consult the [complete guidelines and accompanying maps](#). The following table summarizes options for creating the desired, stand-level conditions.

Starting Condition	Objective	Management Options*	Desired Condition
High canopy cover and low shrub/sapling density	Open canopy and increase light to the understory	<ul style="list-style-type: none"> - Gap-group shelterwood - Clearcut with reserves - Seed-tree harvest - Clearcut - Patch cut - Group selection 	<ul style="list-style-type: none"> - Canopy height: <16 m - Canopy cover: 5-85% - Canopy tree basal area: <20 m²/ha - Subcanopy height: 1.8-5 m - Subcanopy cover: 40-70% - Moderate to high density of woody shrubs and saplings
Open or even forest floor	Enhance forest floor structure	<ul style="list-style-type: none"> Leave/recruit snags in future stands Top and delimb felled trees near the stump Leave slash and logs Girdling 	<ul style="list-style-type: none"> - ≥ 12 song perch trees per ha, emerging ≥ 3 m above the subcanopy, including trees along edge of forest openings - Uneven forest floor with down wood covering ≥10% of the ground - Moderate to high herbaceous plant, fern and moss cover (not just ferns)

* Guidelines may not apply equally across the region due to habitat differences, particularly in Québec

** For definition of terms, refer to the British Columbia Ministry of Forests and Range's [Glossary of Forestry Terms](#).

- Protect saplings, shrubs, and forest floor by minimizing travel and maximizing trail spacing and machine reach.
- To reduce risk to migratory birds and their nests, harvest on snowpack/frozen ground and avoid felling/skidding during periods of nesting and fledgling activity. Consult Environment and Climate Change Canada for nesting periods and general guidance on incidental take avoidance.
- Retain song perch trees scattered such that individuals and clumps are surrounded by > 15.5 m openings. Choose stems that reach at least 1 m above the regenerating layer. In larger cuts, consider creating blocks of 4 ha or more with these conditions.

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Harvests that retain residual trees and woody material (left) provide two key habitat elements, prominent song perches and complex ground structure. Clearcuts and first-cut gap-group shelterwoods (above right) may develop suitable subcanopy structure within five years (below left). Regenerating patch and group cuts (below right) may also support breeding Canada Warblers, especially if clustered or located near rivers or swamps (bottom right).

