



A striking bird with a striking song. Listen for “see-see-see-see-see-SooZIE” in pure or mixed white spruce stands.

Black-throated Green Warbler

(Setophaga virens)

STATUS

SARA NO STATUS
 Alberta SENSITIVE

British Columbia BLUE
 Saskatchewan NO STATUS

PRIMARY HABITAT

Old Coniferous/Mixedwood

TERRITORY SIZE

0.12–1 ha

NEST TYPE

Canopy (conifer)

NEST REUSE

No

STAND LEVEL

High dispersed retention or >0.5 ha patches of large-diameter Sw, Bw

LANDSCAPE LEVEL

Old (100–130 years) riparian Sw or mixedwood, >100 ha if possible

BREEDING WINDOW



HABITAT ECOLOGY

- Black-throated Green Warblers are found in a wide range of forests containing large white spruce (including mixedwoods and deciduous-leading forests), with their highest densities in 100–130 year stands where they often use small-scale canopy gaps.^{1,2} They are also known to occupy young to mature forests.^{3,4}
 - In BC, mature riparian white spruce or mixedwood forests are considered their most important habitat, while mature or old deciduous forests containing mature spruce may attract them.³
- These warblers forage and nest on large-diameter (>50 cm dbh) white spruce.¹
- Black-throated Green Warblers usually nest in conifers⁵ but have shown some preference for paper birch with ~20 cm dbh in Alberta.¹

RESPONSE TO FOREST MANAGEMENT

- This species is most abundant on unlogged landscapes⁶ with a strong preference for forests exceeding the rotation age.⁷
- In deciduous-dominated forests in Alberta, they disappeared from stands with 2–6% retention but were present at low levels in harvests with 40% retention.⁸ They were unlikely to be present in clearcut (i.e. no planned retention) stands up to 33 years postharvest.⁹
- They may be sensitive to fragmentation: in New England, they were absent from forests <100 ha,⁵ and there is evidence that they avoid cutblock edges and crossing openings ≥25–40 m wide.^{2,10}

STAND-LEVEL RECOMMENDATIONS

- High retention (>40%) may be needed to reduce short-term harvest effects on this species, however these recommendations are based on studies from aspen-leading boreal mixedwood forests and may not be applicable to spruce-leading or-dominated forests.^{11,12}
 - Retention patches placed ≤40 m apart may make it easier for these warblers to travel across large harvest areas, however this strategy has not been tested for efficacy.
- Mixed-species retention patches (0.5 ha) containing large-diameter spruce may provide suitable nesting habitat in 30–60 years within a harvest block.²
- Riparian buffers >20 m may support pairs, but larger (>60 m) buffers will likely be more effective.¹³

RANGE MAP

