

7. A Nest of a Williamson's Sapsucker

1) Definition

A nest of a Williamson's Sapsucker (Sphyrapicus thyroideus) means the nest and its supporting structure that either (1) is currently occupied by a William's Sapsucker to hold its eggs or offspring, or (2) is habitually occupied and still capable of holding eggs or offspring of a William's Sapsucker. Figure 26 shows typical nest trees.



Figure 26. Williamson's Sapsucker nest trees: (left) western larch, and (right) trembling aspen. (Photos: Les Gyug)

2) Species Description

The Williamson's Sapsucker is a medium-sized woodpecker. The male is predominantly black with a yellow belly and red throat. It has a white rump, wing patch, and stripes on the head (Figure 27). Unique among woodpeckers, the female is different in appearance than the male with a dark brown and white barred body, brownish head, yellow belly, and white rump (Figure 27). Juveniles resemble adults of their sex but are duller in colour.

Two subspecies (*nataliae* and *thyroideus*) of Williamson's Sapsucker are recognized in British Columbia; however, the subspecies do not overlap in range and are indistinguishable in the field. The species breeds in three distinct geographic regions: (1) Western (Merritt and Princeton area), (2) Okanagan-Boundary, and (3) East Kootenay. Using the best available inventory data, the

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likely number of breeding adults within these three areas is estimated at 837 individuals—424 in the Okanagan-Boundary, 374 in the Western, and 39 in the East Kootenay.¹

Both subspecies of Williamson’s Sapsucker are *Species at Risk* under the *Forest and Range Practices Act* and Blue-listed in British Columbia. Both are designated *Endangered* by COSEWIC. Both subspecies are in decline.



Figure 27. Williamson’s Sapsucker: (left) male, and (right) female. (Photos: Les Gyug)

3) What to Look For

Williamson’s Sapsuckers nest in, or adjacent to, mature and old coniferous stands containing large, veteran western larch with heart rot, a disease which better enables the excavation of nest cavities. Other important habitat features are live, medium-sized western larch and Douglas-fir, which are used to create sap wells, and older trees, which support carpenter ants, a main food source.

Nest trees are typically western larch, although trembling aspen are also used. Nest trees can be isolated leave trees in a clearcut or trees within a closed-canopied forest. Nests are typically located within 400 m of suitable foraging habitat. In British Columbia, most nests are usually found at 700–1520 m elevations.

Male and female birds often re-pair between years and may reuse the same nest tree, although new cavities are usually excavated each year. In one 5-year study in British Columbia, only 3 of 18 original nest trees were still used at the end of 5 years; pairs often moved to alternative nest

¹ Amended Recovery Strategy for the Williamson’s Sapsucker (*Sphyrapicus thyroideus*) in Canada (2016).

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trees in their areas. The minimum territory size estimate is 16 ha, based on nearest neighbour nest distances in high-quality habitat but are likely greater than 20 ha. One Williamson’s Sapsucker home range, determined by radio-telemetry data, was at least 54.2 ha.

The main threat to Williamson’s Sapsucker breeding habitat is the harvesting or clearing of mature and old-growth western larch stands. The amount, type, and spatial configuration of retention areas within a cutblock will influence the degree of impact from forest harvesting on Williamson’s Sapsucker habitat. Felling of standing dead trees for firewood, urbanization, and agriculture also contribute to habitat loss for this species. Table 28 summarizes what to look for when identifying a Williamson’s Sapsucker nest. Table 29 provides information to consider when conducting primary forest and range activities adjacent to a nest tree.

Table 28. Williamson’s Sapsucker nest description: what to look for.

Williamson’s Sapsucker Nest Description
<ul style="list-style-type: none">• Nest tree species include western larch, ponderosa pine, trembling aspen, Douglas-fir, water birch, black cottonwood, and spruce:<ul style="list-style-type: none">○ Okanagan–Boundary: western larch is the preferred nest tree.○ Western area: western larch is largely absent; the majority of nests are in trembling aspen followed by ponderosa pine.○ East Kootenay: preferred nest trees are western larch, ponderosa pine, Douglas-fir, and trembling aspen.• Nest trees include:<ul style="list-style-type: none">○ live western larch (tree class 2), usually with evidence of decay and stem damage (e.g., dead top, broken top, stem scars, visible fungal conks);○ live trembling aspen with heart rot decay (caused by <i>Phellinus tremulae</i>), preferably > 40 cm dbh and in clumps;○ larger-diameter conifers (> 70 cm dbh) that are older than other trees in the stand; or○ dead trees of other tree species listed above.• Nest cavities are typically excavated in trees with outward signs of decay (i.e., broken tops, large stem scars, nest holes, and fungal conks); this species is a relatively weak excavator and cannot excavate cavities in completely sound wood.• Nest trees range in height from 49 m (standing live trees) to short, 5 m broken-trunk, dead trees.• Nests can occur at any height, even as low as 1 m above the ground.• Nest cavity entrance diameters are small, approximately 3–4 cm (about the size of a golf ball).

Table 29. Information to consider when conducting primary forest and range activities near Williamson’s Sapsucker nests.

Information to Consider
<ul style="list-style-type: none">• Establish a windfirm, forested retention area centred around the nest tree. If this is not practical, maintain forest connectivity (where possible) between a retention patch and adjacent forested habitat. Ensure this corridor is as wide as possible to minimize edge effects (e.g., predation, windthrow risk, etc.), and to provide additional security cover, perching, and hunting opportunities.• Retain large-diameter western larch (often live with stem damage and internal decay), which are especially important for this species (see Table 28); where larch is absent, retain larger-diameter (i.e., the largest available on site, at least > 30 cm dbh) ponderosa pine, Douglas-fir, and trembling aspen.• Maintain some vegetation (where available) around the nest for additional security cover, and perching and roosting sites, if the nest tree is a single tree within an existing opening (i.e., meadow, clearing, or cutblock). This vegetation may include:<ul style="list-style-type: none">○ advance regeneration,○ shrubs,○ deciduous trees, and○ non-merchantable trees (e.g., standing dead trees or trees with existing cavities and/or evidence of internal decay).• Avoid constructing roads, trails, or other structures within the retention patch.• Avoid forestry activities (if possible), such as active falling and yarding, road construction, and mechanized silviculture treatments (e.g., chainsaws, excavators), within 100 m of confirmed or probable nest from March 15 to July 15.• Replant with western larch, Douglas-fir, and ponderosa pine in areas with high value (suitability) Williamson’s Sapsucker habitat.• Conduct vegetation management (where possible) to recruit some large-diameter trembling aspen; retain “pockets” of aspen and birch that will develop into mature trees suitable for nesting.• Ants are an extremely important food source for Williamson’s Sapsucker nestlings. Retain large (> 30 cm dbh) coniferous coarse woody debris as substrate for ant populations; western larch and ponderosa pine coarse woody debris is most valuable.• Provide large-diameter (> 40 cm) stumps of variable heights as habitat substrate for ants.• Protect nesting and foraging habitat when burning for forest ingrowth or encroachment purposes.• Dead or decayed trees are often targeted by firewood cutters. Place a “Wildlife Tree Sign” on nest trees to educate the public and others about their high ecological value.• Use fungal inoculation techniques to create wildlife trees and suitable nesting substrate for Williamson’s Sapsucker (see Section 5). <p>Note: Because of potential worker safety concerns, dead and defective trees that are considered for retention must either be located within a suitable-sized retention patch or have a danger tree assessment conducted by a certified wildlife/danger tree assessor. Consult the Wildlife Tree Committee of British Columbia website for information and links relevant to dangerous tree assessment (see Section 5).</p>

4) Regional Information – Kootenay Boundary

In this section, we provide specific timing windows and guidance on disturbance buffers for the Kootenay Boundary Region. This information may vary from provincial guidance and may not be applicable outside of the Kootenay Boundary Region because of regional specificity.

Williamson’s Sapsucker is a migratory species. It arrives in British Columbia in late March and departs in September. In the Okanagan-Boundary and East Kootenay areas, these birds most often use veteran western larch and trembling aspen as nest trees at elevations of 610–1580 m (Figures 28–29; Table 30). Williamson’s Sapsuckers are sensitive to disturbance. Table 31 provides suggested minimum buffer sizes. Additional protection or alternative measures may be needed, depending on the nature of the disturbance, existing landscape and cover, or other factors.

Williamson’s Sapsuckers are most sensitive during the breeding season, which includes territory establishment and courtship stages. Each breeding season stage requires protection because this disturbance-sensitive bird could abandon a site at any time during the entire breeding period. Please note that the following dates offer a general guide of when you might expect to see breeding season activities in the Kootenay Boundary Region; actual breeding season length will depend on the year and area.

- Courtship and nest initiation: March 15–April 31
- Eggs present: May 1–June 1
- Young present: June 1–July 15

This creates a potential *sensitive period of March 15–July 15*, which encompasses courtship (month before nesting), nesting, and fledging.² Based on observations of nest stage, the length of this sensitive period can be refined. The period of *least risk is September 15–March 15*.

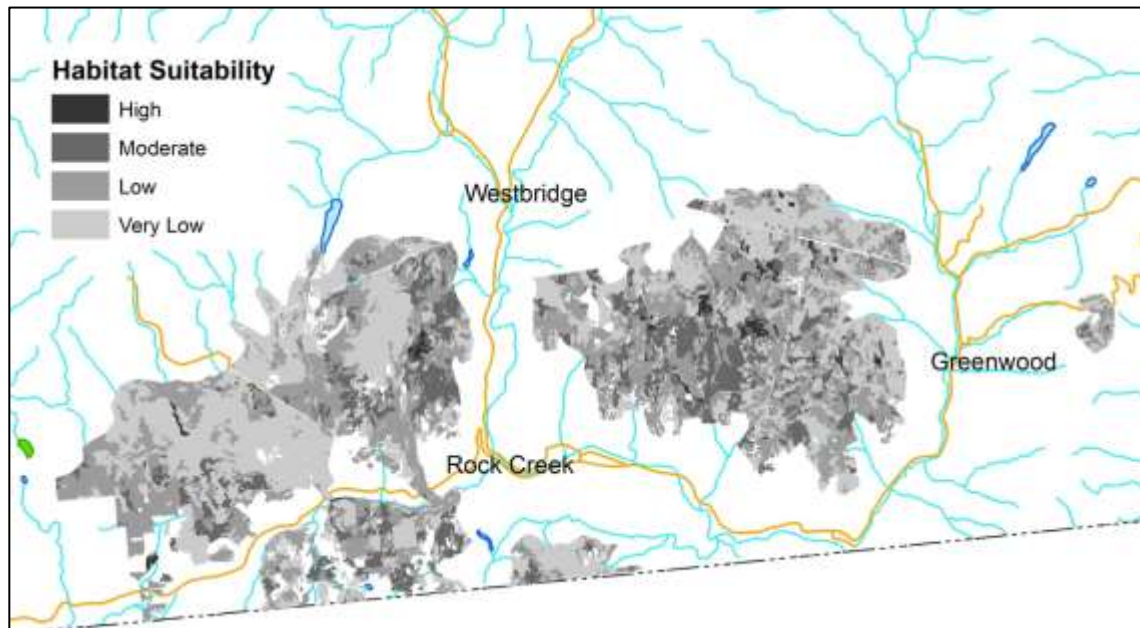


Figure 28. Suitable habitat for Williamson's Sapsucker within the Boundary portion of the Okanagan-Boundary area of occupancy.

² Amended Recovery Strategy for the Williamson’s Sapsucker (*Sphyrapicus thyroideus*) in Canada (2016)

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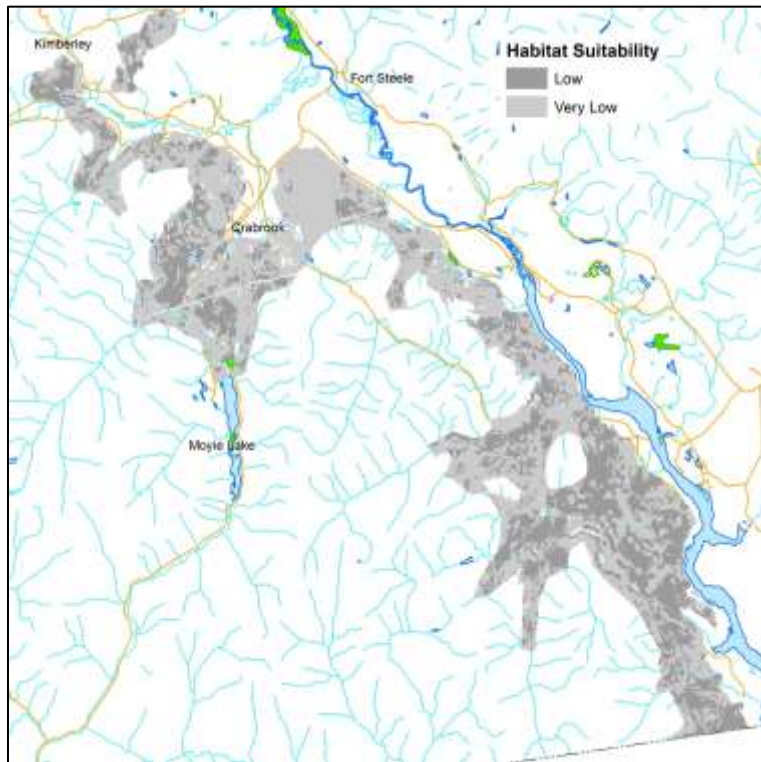


Figure 29. Suitable habitat for Williamson's Sapsucker within the East Kootenay area of occupancy.

Table 30. Habitat and biogeoclimatic associations of Williamson's Sapsuckers in the Kootenay Boundary Region.³

Habitat	Biogeoclimatic Zone ⁴	Biogeoclimatic Subzone/Variant
Engelmann Spruce–Subalpine Fir	ESSF	mw (very rare)
Interior Cedar–Hemlock	ICH	dw, mk1, mk2, mw2, xw
Interior Douglas-fir	IDF	dk1, dk1a, dk2, dm, dm1, dm2, mw1, mw2, un, xh1, xh1a, xh2, xh2a, xh4, xw
Montane Spruce	MS	dk, dm1, dm2, xk
Ponderosa Pine	PP	dh1, dh2, xh1, xh1a, xh2, xh2a

³ Identified Wildlife Management Strategy – Species Accounts and Measures (2004).

⁴ A Field Guide for Site Identification and Interpretation for the Nelson Forest Region (1992).

Table 31. Guidance on disturbance buffers for a Williamson’s Sapsucker nest.

A Nest of a Williamson’s Sapsucker – Guidance on Buffers
<ul style="list-style-type: none">• Retain important habitat attributes within 200-500 m of a known nest where Williamson’s sapsuckers will forage.• Wildlife tree patches should be a minimum of 0.25 ha.• If a confirmed or probable nest tree is a single, isolated tree within an existing open area, maintain all existing trees as well as woody debris in a 0.5 ha area.• Locate road and landing construction at a sufficient distance from confirmed and probable nest trees to ensure the tree does not need to be removed as a danger tree.• Avoid high-disturbance forestry activities with potential for prolonged disturbance (i.e. more than a few hours) within 100 m of a confirmed or probable nest during the breeding season (March 15 – July 15).• Where blasting is required for road construction, establish a buffer of 1000 m around any confirmed or probable nest sites during the breeding season (March 15 – July 15).• Establish wildlife tree patches of a sufficient size to safely buffer an existing nest tree, suitable nest trees, snags, or other trees containing nest cavities from the adjacent work area and to maximize wind firmness.• Refer to <i>Best Management Practices for Timber Harvesting, Roads, and Silviculture for Williamson’s Sapsucker in British Columbia</i> for your area (East Kootenay area of occupancy, Okanagan-Boundary area of occupancy) for detailed information on managing Williamson’s sapsucker habitat.

5) Additional Information

A Field Guide for Site Identification and Interpretation for the Nelson Forest Region, Land Management Handbook No. 20:

<https://www.for.gov.bc.ca/hfd/pubs/docs/lmh/lmh20.htm>

Amended Recovery Strategy for the Williamson's Sapsucker (*Sphyrapicus thyroideus*) in Canada:

[http://registrelep-](http://registrelep-sararegistry.gc.ca/virtual_sara/files/plans/amended%5Frs%5Fwilliamson%27s%5Fsapsucker%5Fe%2Epdf)

[sararegistry.gc.ca/virtual_sara/files/plans/amended%5Frs%5Fwilliamson%27s%5Fsapsucker%5Fe%2Epdf](http://registrelep-sararegistry.gc.ca/virtual_sara/files/plans/amended%5Frs%5Fwilliamson%27s%5Fsapsucker%5Fe%2Epdf)

Atlas of the Breeding Birds of British Columbia – Williamson's Sapsucker Species Account:

<http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=WISA&lang=en>

BC Species and Ecosystems Explorer – Species Summary for Williamson's Sapsucker:

<http://a100.gov.bc.ca/pub/eswp/speciesSummary.do?id=15025>

Best Management Practices for Timber Harvesting, Roads, and Silviculture for Williamson's Sapsucker in British Columbia:

East Kootenay Area of Occupancy:

<http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=9691>

Okanagan-Boundary Area of Occupancy:

<http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=9692>

Identified Wildlife Management Strategy – Williamson's Sapsucker Species Account:

http://www.env.gov.bc.ca/wld/frpa/iwms/documents/Birds/b_williamsonssapsucker.pdf

Results of Fungal Inoculation Treatments as a Habitat Enhancement Tool in the East Kootenay Region of British Columbia: 2007–2014:

<https://www.for.gov.bc.ca/hfd/pubs/docs/en/EN112.pdf>

Wildlife Tree Committee of British Columbia website:

<https://www2.gov.bc.ca/gov/content?id=D81A1EAB5A7F45688B4CBC746DB9DD05>

Williamson's Sapsucker COSEWIC Status Report:

http://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_williamsons_sapsucker_e.pdf