













## Moist Coniferous focal species of Canada's Great Basin: conservation issues and objectives.

Focal Species <sup>a</sup>	Population Data and Objective	Potential Conservation Concerns <sup>a, e</sup>	Habitat Description <sup>e</sup>	Conservation Focus <sup>a, e</sup> and Habitat Objective
<p><b>Blue Grouse</b> <i>Dendragapus obscurus</i> BUGR</p>  <p>Photo: Laure Neish</p>	<p><b>Status <sup>b</sup>:</b> BC: Yellow (Not at Risk). CAN: Not Assessed. <b>Trend <sup>c</sup>:</b> BC GB: No BBS trend; GB &amp; Global: ↓ <b>Size Estimate:</b> Data deficient <b>Objective <sup>d</sup>:</b> At minimum, maintain current distribution and habitat until data deficiencies (i.e., population size and habitat requirements) are determined.</p>	<p>Loss of open or high quality mature forests adjacent to openings. Loss of larger, mature conifers with atypical growth or stress.</p>	<p><b>Throughout Canada's Great Basin, over a wide range of elevations:</b> Breeding habitat includes open coniferous forests and forest openings (including low elevation grasslands) with productive shrubs, forbs and grasses. Wintering habitat includes moderate to dense coniferous forests, usually at higher elevation, with larger trees with atypical growth for foraging/roosting (Zwickel, 1992, Campbell et al. 1990; Cannings et al. 1987).</p>	<p><b>Conservation Focus:</b> Open coniferous forests, and adjacent grasslands, meadows and clearings with productive forb, grass and shrub layers.</p>  <p>Photo: Andy M. Bezener</p> <p><b>Habitat Objective:</b> To be determined.</p>
<p><b>Boreal Owl</b> <i>Aegolius funereus</i> BOOW</p>  <p>Photo: Christian Artuso</p>	<p><b>Status <sup>b</sup>:</b> BC: Yellow (Not at Risk). CAN: Not At Risk. <b>Trend <sup>c</sup>:</b> BC GB: No BBS trend GB: No BBS trend <b>Size Estimate:</b> Data deficient <b>Objective <sup>d</sup>:</b> At minimum, maintain current distribution and habitat until data deficiencies (i.e., population size and habitat requirements) are determined.</p>	<p>Loss of large, mid-to-high elevation mature and old growth mixed conifer stands. Loss of snags with cavities. Fragmentation, loss of old-growth structure may reduce availability of small mammal prey.</p>	<p><b>Throughout Canada's Great Basin, at mid to high elevations:</b> Nests in snags or trees with cavities in large patches of mature to old Englemann spruce, subalpine fir, mixed conifer or mixed-wood forests. Open understory may aid in hunting for small mammal prey. Downed wood may help support prey populations (Hayward and Hayward 1993, Campbell et al. 1990; Cannings et al. 1987).</p>	<p><b>Conservation Focus:</b> Large, unfragmented tracts of old-growth moist coniferous forest with snags containing cavities.</p>  <p>Photo: Andy M. Bezener</p> <p><b>Habitat Objective:</b> To be determined.</p>

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<p><b>Williamson's Sapsucker</b> <i>Sphyrapicus thyroideus</i> WISA</p>  <p>Photo: Les Gyug</p>	<p><b>Status <sup>b</sup>:</b> BC: Blue-listed (<i>thyroideus</i> ssp.) CAN: Not Assessed. <b>Trend <sup>c</sup>:</b> BC GB: No BBS trend GB: No BBS trend <b>Size Estimate:</b> 100-200 pairs (L. Gyug 2003, pers. comm.), 114 pairs (Gyug and Peatt 2000) [accuracy rating – moderate]<sup>d</sup> <b>Objective <sup>d</sup>:</b> At minimum, maintain current distribution and habitat until data deficiencies (i.e., population size and habitat requirements) are determined.</p>	<p>Loss of open Douglas-fir, western larch and other mixed coniferous stands. Loss of large snags &amp; stands with high densities of snags. Loss of large diameter conifers (Douglas-fir) for sap trees.</p>	<p><b>Throughout Canada's Great Basin, between 310-1425 m elevation:</b> Nests in mature to old western larch dominated stands, and some mixed coniferous and mixed-wood stands with large diameter snags and trees. (Campbell et al. 1990; Fraser et al. 1990).</p>	<p><b>Conservation Focus:</b> Large diameter snags and mature, western larch dominated forests.</p>  <p>Photo: Andy M. Bezener</p> <p><b>Habitat Objective:</b> To be determined.</p>
<p><b>Black-backed Woodpecker</b> <i>Picoides arcticus</i> BBWO</p>  <p>Photo: Christian Artuso</p>	<p><b>Status <sup>b</sup>:</b> BC: Yellow (Not at Risk). CAN: Not Assessed. <b>Trend <sup>c</sup>:</b> BC GB: No BBS trend GB: No BBS trend <b>Size Estimate:</b> Data deficient <b>Objective <sup>d</sup>:</b> At minimum, maintain current distribution and habitat until data deficiencies (i.e., population size and habitat requirements) are determined.</p>	<p>Loss of burned forests due to fire suppression. Loss of burned or beetle infested trees due to salvage logging.</p>	<p><b>Throughout Canada's Great Basin, usually at mid to high elevations.</b> Nests and forages in recently burned or mature coniferous stands and forest edges with abundant wood-boring or bark beetle prey (Dixon and Saab 2000, Campbell et al. 1990, Cannings et al. 1987).</p>	<p><b>Conservation Focus:</b> Unsalvaged recent burns and mature to old conifer stands with abundant beetle prey. Maintenance of natural disturbance regimes.</p>  <p>Photo: Andy M. Bezener</p> <p><b>Habitat Objective:</b> To be determined.</p>

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<p><b>Olive-sided Flycatcher</b> <i>Contopus cooperi</i> OSFL</p>  <p>Photo: Dan Derbyshire / Rocky Point Bird Observatory</p>	<p><b>Status <sup>b</sup>:</b> BC: Yellow (Not at Risk). CAN: Not Assessed. <b>Trend <sup>c</sup>:</b> BC GB: No BBS trend GB: ↓ <b>Size Estimate <sup>d</sup>:</b> 70,000 [accuracy rating – fair]<sup>d</sup> <b>Objective <sup>d</sup>:</b> Double current population.</p>	<p>Loss of tall snags and wildlife trees due to fire suppression and silvicultural practices. ↓ Food source.</p>	<p><b>Throughout Canada's Great Basin, above 600-900 m elevation:</b> Nests in mature, open coniferous or mixed-wood stands, forest edges and burns with tall snags and trees (Altman and Sallabanks 2000, Campbell et al. 1997; Cannings et al. 1987).</p>	<p><b>Conservation Focus:</b> Tall trees and snags, especially adjacent to clearings, moist sites, and recent burns with abundant insect prey. Uneven edges and variable canopy openings.</p>  <p>Photo: Andy M. Bezener</p> <p><b>Habitat Objective:</b> To be determined.</p>
<p><b>Hammond's Flycatcher</b> <i>Empidonax hammondii</i> HAFL</p>  <p>Photo: Dan Derbyshire / Rocky Point Bird Observatory</p>	<p><b>Status <sup>b</sup>:</b> BC: Yellow (Not at Risk). CAN: Not Assessed. <b>Trend <sup>c</sup>:</b> BC GB: ↓ GB: ↑ <b>Size Estimate <sup>d</sup>:</b> 100,000 [accuracy rating – fair]<sup>d</sup> <b>Objective <sup>d</sup>:</b> Increase current population by 50%.</p>	<p>Loss of mature and old growth forests, with well-developed, shaded canopy. Loss of tall, large diameter trees for nesting and foraging, especially adjacent to small, wet openings.</p>	<p><b>Throughout Canada's Great Basin, at mid to high elevations:</b> Nests in mature, shady, usually moist coniferous forests with large tall trees. Shaded areas of the mid to upper canopy are used for fly-catching. (Campbell et al. 1997; Sedgwick 1994; Cannings et al. 1987).</p>	<p><b>Conservation Focus:</b> Large, tall trees, multiple canopy layers with openings in the sub- and mid-canopy. Moist forest sites and edges.</p>  <p>Photo: Andy Bezener</p> <p><b>Habitat Objective:</b> To be determined.</p>

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<sup>a</sup> Partners in Flight database (Panjabi et al. 2001) and/or Partners in Flight BC/Yukon Southern Interior Workshop (March 1999).

<sup>b</sup> Population status from British Columbia Conservation Data Centre ([srmwww.gov.bc.ca/atrisk/toolintro.html](http://srmwww.gov.bc.ca/atrisk/toolintro.html)) and Environment Canada ([www.speciesatrisk.gc.ca/search/default\\_e.cfm](http://www.speciesatrisk.gc.ca/search/default_e.cfm)).

<sup>c</sup> Population trends from Breeding Bird Survey data from 1976 – 2000 for the Southern Interior Ecoprovince (SOI), and on the longest run of data for the Great Basin Bird Conservation Region (GB). Anecdotal information from Cannings (pers. comm. 2000). BC listing from BC Ministry of Sustainable Resource (2001) and Canadian listing from Committee on the Status of Endangered Wildlife in Canada (May 2001).

<sup>d</sup> See Appendix 4 for methods and definitions of accuracy ratings

<sup>e</sup> Other data sources include: Birds of the Okanagan Valley, British Columbia (Cannings et al. 1987); Rare Birds of British Columbia (Fraser et al. 1999); The Birds of British Columbia, volumes II (Campbell et al. 1990) and III (Campbell et al. 1997); Altman and Sallabanks 2000; Dixon and Saab 2000; Gyug 2000; Gyug and Peatt 2000; Kirk 1999; Dobbs et al. 1997; Ingold and Galati 1997; Pitocchelli 1995; Sedgwick 1994; Hayward and Hayward 1993; Les Gyug pers. comm.