

Selected Species at Risk found in Forest and Range Habitats within the Southern Interior of British Columbia

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Introduction

This guidebook was developed to assist forestry personnel and contractors with the identification of legally protected species and plant communities at risk that may be found within forest and range habitats in the southern interior of British Columbia, particularly the 100 Mile House, Arrow Boundary, Cascades, Headwaters, Kamloops, and Okanagan Shuswap forest districts.

The species and plant communities featured in this guide are legally protected under the

- Federal Species at Risk Act (SARA)—Identified under Schedule 1 as Endangered, Threatened, or Special Concern;
- Forest and Range Practices Act (Section 7 Notices);
- Identified Wildlife Management Strategy (version 2004)—The category of Species at Risk represents those provincially red- (endangered, extirpated, threatened) and blue-listed (special concern) species (including key plants and plant communities) that may be impacted by forest and range activities and that require specific habitat protection; and/or
- Nicola Thompson Fraser Sustainable Forest Management Plan (2017) and/or the Tolko/BCTS/WFN Okanagan Operations Sustainable Forest Management Plan (2016/2017).

Revisions were made to the preliminary species list based on a review of other available information regarding the distribution of certain species, including but not limited to Ecosystems Branch Accounts and Measures for Managing Identified Wildlife documents and COSEWIC species status reports, and consultation with species experts. These revisions included the omission of several species and plant communities from the guide due to the limited number of occurrences for a species/plant community in the forest districts of interest, limited or no habitat present for a species/plant community in the forest districts of interest, and/or because further analysis concluded that these species/plant communities do not occur in habitats that are likely to be impacted by forestry activities.

Introduction

The following species and plant communities were omitted:

- Alkaline wing-nerved moss
- Antelope-brush / needle-and-thread grass
- Barn Owl
- Behr's hairstreak
- Bent spike-rush
- Branched phacelia
- Columbian carpet moss
- Dark saltflat tiger beetle
- Desert nightsnake
- Douglas-fir / common juniper / clad lichens
- Dwarf woolly-heads
- Grand Coulee owl-clover
- Haller's apple moss
- Lemmon's holly fern
- Lyall's mariposa lily
- Mexican mosquito fern
- Mormon metalmark
- Mountain holly fern
- Northern leopard frog
- Nugget moss
- Nuttall's cottontail
- Ponderosa pine / bluebunch wheatgrass-silky lupine
- Pygmy short-horned lizard
- Rocky Mountain ridged mussel
- Rusty cord-moss
- Scarlet ammannia
- Short-rayed aster
- Showy phlox
- Slender collomia
- Small-flowered lipocarpa
- Stoloniferous pussytoes
- Toothcup
- Western hemlock–Douglas-fir / electrified cat's-tail moss Dry Submaritime 1
- Western redcedar–Douglas-fir / vine maple
- Western redcedar / devil's club

GUIDE ORGANIZATION AND CONTENT

The guide is organized into seven major colour-coded categories: amphibians, birds, fish, invertebrates, mammals, reptiles, and plants/plant communities. It is further subdivided by species specialization (for example, the mammal class is separated into carnivores, ungulates, bats, and rodents) or other characteristics. Animal or plant symbols are located at the bottom of each page to enable the user to quickly locate major category headings or a particular species of interest.

Identification characteristics are provided for each species, and key features are indicated by red arrows in the accompanying photographs. Also included are photos of tracks (where applicable), vocalization descriptions (with sound files, where applicable), key elevations, forest districts, biogeoclimatic (BEC) zones, and important habitat features. Please note, the [PDF Expert](#) app is required to play the vocalizations on an iPad.

For certain species a simple bar graph is included that generally indicates non-breeding presence, breeding chronology (for eggs and/or young), hibernation, and migration.

Example: Burrowing Owl



At the back of the guide, users will find an index of the species found in each forest district of interest (100 Mile House, Arrow Boundary, Cascades, Headwaters, Kamloops, and Okanagan Shuswap).

DATA SOURCES

The species information included in this guidebook was obtained from several sources, including but not limited to

- [BC Species and Ecosystems Explorer](#);
- [Species at Risk Public Registry](#);
- Ministry of Environment [Identified Wildlife species accounts](#);
- [COSEWIC](#) species assessments and status reports;
- published species reference books such as Campbell, R.W., et al. 1990. *The Birds of British Columbia*, Royal B.C. Museum in association with Environment Canada;
- recently published studies and technical reports; and
- discussions with species experts.

FOOTNOTE

It is important to note that this guide does not include all provincially designated red- and blue-listed species. Instead, it is focused on those species and plant communities with legal protection that may be found in the forest districts of interest. A number of published guides are currently available that can assist field personnel with the identification of wildlife not included in this book.

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Great Basin Spadefoot

Spea intermontana



Photo: William Bosworth

CONSERVATION STATUS

- SARA Schedule:
1 - Threatened
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Blue

DESCRIPTION

- Small toad (Length: 4–8 cm) with vertical pupils.
- Back is relatively smooth and olive or grey with spots or streaks.
- Belly is cream coloured or white.
- It has a well-developed, sharp-edged small black “spade” on the bottom of each hind foot (used for burrowing).
- It is the only spadefoot toad in British Columbia.

VOCALIZATION



A loud, short, 1–3 note, duck-like snoring sound. It has been compared to the sound of a flock of ducks slowed down. Calls at night.

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Kamloops, Okanagan Shuswap

BEC ZONES

BGxh1, BGxh2, BGxh3, BGxw, BGxw1, BGxw2
IDFdm1, IDFdk1, IDFdk2, IDFmw1 (unconfirmed), IDFmw2 (unconfirmed),
IDFhx1, IDFhx1a, IDFhx2, IDFhx2a, IDFhxw
MSdm (unconfirmed)
PPdh1, PPxh1, PPhx2



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Great Basin Spadefoot

SPECIES PHENOLOGY

Hibernation			Tadpoles						Hibernation		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

ELEVATION

275–1,800 m but generally found breeding below 600 m

IMPORTANT HABITAT FEATURES

- Breeds in permanent or temporary aquatic habitats such as lakes, seasonal wetlands, rain pools, flooded areas along streams, and pools in intermittent streams.
- Shallow water is an important feature of suitable breeding sites, including the edges of deeper water features.
- Also occur in semi-arid habitats such as bunchgrass grasslands, sagebrush steppe, and open ponderosa pine forests. Terrestrial habitats are used throughout the year.
- Loose and deep soils provide suitable burrowing habitat. They may also retreat under coarse woody materials.
- Structural stage: Although most closely associated with herb (2) and shrub (3) structural stages for foraging, they will occur in open forest (4–7). Soil texture and depth and an open habitat structure are more critical factors in determining foraging suitability.

ADDITIONAL INFORMATION

Occurs in the Okanagan, Similkameen, Kettle, Nicola, and Thompson valleys north to 70 Mile House, west to Princeton, and east to Grand Forks.



Photo: James Bettaso



Coastal Tailed Frog

Ascaphus truei



Photo: Gary Nafis

CONSERVATION STATUS

- SARA Schedule: 1 - Special Concern
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Blue

DESCRIPTION

- Only frog species that breeds in cold, fast flowing streams.
- Small frog (2.2–5.1 cm) with a large head, vertical pupil, and broad and flattened outer hind toes.
- Males have a short, conical “tail”.
- Adults have a grainy skin that can vary in colour from tan, to chocolate brown, to olive green; fine black speckling generally occurs on paler individuals.
- Often a distinct copper bar or triangle between the eyes and snout with green undertones.
- Eggs (late summer): 44–85, colourless, pea-sized, and double stranded; attached to underside of a large rock or bolder in the stream. Most often found close to headwaters (usually difficult to find).
- Tadpoles usually have a white dot on the tip of the tail.

VOCALIZATION

Tailed frogs do not call.



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Coastal Tailed Frog

SPECIES PHENOLOGY

Tadpoles											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

IMPORTANT HABITAT FEATURES

- Clear mountain streams with step-pool morphologies, and overall gradients that are not too low or excessively steep.
- Will inhabit pool-riffle habitats characteristic of fish-bearing streams.
- Intrusive or metamorphic bedrock formations, moderate annual rainfall with a relatively high proportion of it occurring during the summer.
- Tadpoles require stable perennial mountain streams characterized by regularly spaced pools and interlocked cobble/boulder (or wood) steps that withstand moderate floods and sediment pulses
- Structural stage: 6 (mature forest), 7 (old forest)

BEC ZONES

CWHdm, CWHds1, CWHds2, CWHms1, CWHms2, CWHvh1, CWHvh2, CWHvm, CWHvm1, CWHvm2, CWHwm, CWHws1, CWHws2, CWHxm1
ESSF
ICHmc2
IDFdk2, IDFww, IDFxh1
MH
MS



Coastal Tailed Frog eggs
Photo: Jared Hobbs

FOREST DISTRICTS

Cascades, Chilliwack, Kalum, North Coast, North Island - Central Coast, Skeena Stikine, Skeena Stikine - Bulkley, Squamish, Sunshine Coast

ELEVATION

Sea level to 2,140 m



Coastal Tailed Frog tadpole
Photo: Gary Nafis



Western Toad

Anaxyrus boreas



Photo: Wikipedia

DESCRIPTION

- A warty toad with dry, bumpy skin
- Conspicuous, oval-shaped parotoid glands
- Horizontal pupils
- Colour is yellowish, dusky, tan, gray, or greenish on top, with dark markings ranging from a few spots to extensive mottling.
- Usually a light stripe extends along the middle of the back (most prominent in mature females; may be absent or inconspicuous in juveniles, which may have reddish warts).

VOCALIZATION



Breeding call is a quiet peeping like little chicks

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson, Fort St. James, Haida Gwaii, **Headwaters**, Kalum, **Kamloops**, Kootenay Lake, Mackenzie, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar, South Island, Squamish, Sunshine Coast, Vanderhoof

CONSERVATION STATUS

- SARA Schedule: **1 - Special Concern**
- Identified Wildlife: **No**
- Included in SFMP: **No**
- Provincial List: **Blue**



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Western Toad

SPECIES PHENOLOGY

Hibernation			Tadpoles						Hibernation		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEC ZONES

BG, BWBS, CDF, CWH, ESSF, ICH, IDF, PP, SBS, SWB

ELEVATION

Sea level to approximately 3,600 m

IMPORTANT HABITAT FEATURES

Toads utilize a variety of terrestrial habitats in BC, including all forest and woodland types, shrubland/chaparral, savanna, cropland/hedgerow, grassland/herbaceous cover, old fields, and suburban/orchard. Hibernacula are located in areas with loose soils and burrows. Toads have been observed using downed wood for cover in recent clear cuts.



Western toad tadpoles
Photo: K. Seymour



Coeur d'Alene Salamander

Plethodon idahoensis



Photo: Jared Hobbs

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
No
- Included in SFMP:
No
- Provincial List:
Yellow

DESCRIPTION

- Small lungless, terrestrial salamander (Total length: up to 13 cm)
- Brown-black body with yellowish throat patch and yellow, orange, or red dorsal stripe with wavy margin (in BC almost all have a yellow-orange stripe)
- Relatively long legs with short, slightly webbed toes
- Distinct parotoid glands at rear of head
- Females larger than males

FOREST DISTRICTS

Arrow Boundary, Columbia, Kootenay Lake, Rocky Mountain

BEC ZONES

ICHdw, ICHmk1 (in MCR), ICHmw2 (in CCM and SFH), ICHwk1 (in CCM), ICHxw (in SCM and SFH)
IDFun (SFH)

ELEVATION

488–1,524 m



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Coeur d'Alene Salamander

SPECIES PHENOLOGY

Hibernation											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

IMPORTANT HABITAT FEATURES

- Occur in wet microhabitats associated with fissured bedrock or deep, wet talus
- Require moist, underground, rocky retreats to avoid desiccation in summer and freezing in winter
- Important habitat features for this species include waterfall splash zones; rock seepages; fissured bedrock in association with streams; deep, wet, talus; and avalanche paths where there is fissured bedrock associated with moisture.

ADDITIONAL INFORMATION

Generally located in coniferous forest, these salamanders are nocturnal and spend most of their time underground or in cool, moist spaces between rocks or under cover objects, where they are protected from dessication.



Photo: A. Catenazzi

Blotched Tiger Salamander

Ambystoma mavortium



Photo: Will Flaxington

CONSERVATION STATUS

- SARA Schedule: 1 - Endangered
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Red

DESCRIPTION

- Large, heavy-bodied salamander (TL: average, 14–18 cm; maximum, 32.7 cm)
- Adult colouration: highly variable, with large blotches or bars of yellow, cream, or dirty white on a black, grey, or dark-brown background. Colour pattern is variable between barred and blotched
- Wide, rounded head with small eyes and no paratoid glands
- Larvae are pond-dwelling and have large feathery gills

FOREST DISTRICTS

Arrow Boundary, Okanagan Shuswap

BEC ZONES

BGxh1
ICHdw(?), ICHmk1(?), ICHmw2(?), ICHxw
IDFdk1, IDFdk2(?), IDFdm1, IDFxh1
PPdh1, PPdh2(?), PPxh1, PPxh1a

ELEVATION

275–1,250 m



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Blotched Tiger Salamander

SPECIES PHENOLOGY

Migration/Breeding					Migration						
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

IMPORTANT HABITAT FEATURES

- Possible habitats include deep-soiled grasslands, parklands, subalpine meadows, and semi-deserts in arid regions.
- Require sandy or friable soils surrounding semi-permanent to permanent fishless water bodies; breeding habitat must hold water for 3 to 7 months for larvae to complete metamorphosis.
- Utilize small mammal burrows (e.g., pocket gopher) for shelter, subterranean access, and overwintering sites
- Usually found within 650 m of suitable aquatic breeding habitat
- Neotenic populations (adults that retain larval characteristics such as gills) require permanent water bodies free of predatory fish (Reported at 5 sites in British Columbia).

ADDITIONAL INFORMATION

Adult tiger salamanders migrate to breeding ponds from their terrestrial residences during spring and then return after breeding. Newly metamorphosed tiger salamanders migrate from the breeding ponds to upland terrestrial sites in mid to late summer after nightly rainfalls.

Occurs in the dry southern interior region of British Columbia, south of Peachland. It is restricted to scattered, isolated populations in the South Okanagan, Lower Similkameen, and Kettle River watersheds with the range extending south to the U.S. border.



Photo: Hank Wallay

Burrowing Owl

Athene cunicularia



Photo: Gordon Court

CONSERVATION STATUS

- SARA Schedule: 1 - Endangered
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Red

DESCRIPTION

- Small owl (23–28 cm) with round head lacking ear tufts and long legs
- Yellow eyes with a pale eyebrow
- Body is dull brown with pale bars and spots
- Underside and breast are lighter and barred with brown
- Tail is short and wings are large
- Distinctive bobbing motion when agitated
- Nests in burrows and is often associated with ground squirrel, prairie dog, or marmot colonies
- Often seen perched in daylight

VOCALIZATION



Male: nasal, trumpeting “coo-cooo” call on one pitch

Female: short clear “eep”

Both sexes have harsher rasping and barking calls.

When disturbed in the burrow the owl often produces a call imitating the sound of a rattlesnake.



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Burrowing Owl

SPECIES PHENOLOGY



FOREST DISTRICTS

100 Mile House, Campbell River, **Cascades**, Central Cariboo, Chilcotin, Chilliwack, **Kamloops**, **Okanagan Shuswap**, Rocky Mountain, South Island

BEC ZONES

BGxh1, BGxh2, BGxw1, BGxw2, BGxw3
CDFmm
CWH
IDFdk1a, IDFxh1a, IDFxh2a, IDFxh
PPdh1, PPxh1, PPxh1a, PPdh2

ELEVATION

335–1,250 m

IMPORTANT HABITAT FEATURES

- Associated with plant communities dominated by big sagebrush (*Artemisia tridentata*), antelope-brush (*Purshia tridentata*), and bunchgrass (*Agropyron* and *Festuca* spp.).
- Nests are usually located in areas where vegetation is shorter and less dense than the surrounding landscape.
- Burrows used by owls in British Columbia include those dug by American Badger, Coyote, and Yellow-bellied Marmot.
- Structural stage: 1 (non-vegetated/sparse), 2 (herb)



Photo: Rick Scott



Burrow



Flammulated Owl

Psiloscopus flammeolus

Photo: Judd Patterson

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Blue

DESCRIPTION

- Very small owl
(Length: 16–19 cm)
- Dark eyes
- Small indistinct ear tufts
- Plumage is variegated red and grey
- Cavity nester

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Kamloops, Kootenay Lake, Okanagan Shuswap, Rocky Mountain

VOCALIZATION



Mellow “hoop” or “hoo-hoop” notes at regular intervals of 3-4 seconds.

BEC ZONES

BGxh1, BGxh2, BGxw, BGxw1,
 BGxw2
 IDfdk1, IDfdk2, IDfdk3, IDfdk4,
 IDfdm, IDfdm1, IDfdm2, IDfmw1,
 IDfmw2, IDFun, IDFhx1, IDFhx1a,
 IDFhx1b, IDFhx2, IDFhx2a,
 IDFhx2b, IDFxm, IDFwx, IDFwx2
 Ppdh1, Ppdh2, PpXh1, PpXh2



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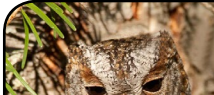
SPECIES PHENOLOGY



ELEVATION

400–1,375 m (Kamloops and Merritt)

IMPORTANT HABITAT FEATURES

- Multi-age class stands with multiple canopy layers, including a veteran tree component for nesting and roosting.
 - Foraging habitat is characterized by small forest openings (< 1 ha) adjacent to Douglas-fir thickets and/or large veteran Douglas-firs or ponderosa pines.
 - Wildlife trees with large live branches (class 1) provide considerable security cover for roosting, calling, and snags with cavities (wildlife tree classes 3–6) provide nesting habitat.
 - Large diameter ponderosa pine selected disproportionately to Douglas-fir for nesting (average dbh of known nest trees: 63.8 cm).
 - Nests are generally found in woodpecker cavities (Pileated Woodpecker and Northern Flicker).
 - Structural stage: 6: mature forest, 7: old forest
- 

ADDITIONAL INFORMATION

In the breeding season (May–September), it occurs from the Okanagan and Similkameen valleys north through the Nicola and Thompson valleys and the drier parts of the Fraser-Chilcotin valleys to Alexis Creek in the west and McLeese Lake in the north.



Photo: Jared Hobbs



Peregrine Falcon, *anatum* subspecies

Falco peregrinus anatum



Adult Peregrine Falcon

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red

DESCRIPTION

- Large, crow-sized stocky falcon (Length: 40 cm, Wingspan: 100 cm)
- Black head and malar stripe.
- Bluish to slate grey back and wings.
- Long pointed wings that are uniformly patterned underneath.
- Flight: Normal cruising speed of about 65 kph and can, in short bursts of level flight, achieve speeds approaching 110 kph.
- Juvenile can be distinguished from adult by brown back and heavily streaked chest and belly.

VOCALIZATION



Noisy alarm call "kek
kek kek kek kek"



Photo: Robert Harrington



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Peregrine Falcon, *anatum* subspecies

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Chilliwack, Fort St. James, **Kamloops**, Kootenay Lake, Mackenzie, **Okanagan Shuswap**, Peace, Prince George, Quesnel, Rocky Mountain, South Island, Squamish, Sunshine Coast, Vanderhoof

BEC ZONES

BG, BWBS, CDF, CWH, IDF, MS, PP
SBS

ELEVATION

150–2,750 m (for nest sites).

IMPORTANT HABITAT FEATURES

- Nests on rock cliffs overlooking lake or river valleys.
- Important hunting areas: wetlands and riparian habitats; meadows and parklands; crop lands such as hayfields, grain fields and orchards; and areas such as gorges, mountain valleys and lakes.



Immature Peregrine Falcon
Photo: Frank Greenaway



Prairie Falcon

Falco mexicanus



CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Red

DESCRIPTION

- Large crow-sized falcon with pointed wings inhabiting open landscapes (Length: 40 cm, Wingspan: 100 cm)
- Back and wings are pale brown; chest and belly are mostly cream coloured with dark streaks
- Faint vertical moustache originating from eyes
- Distinguishing feature: dark wing linings
- Juveniles are similar to adults with heavier streaking on chest and belly
- Similar in size to the Peregrine Falcon but with a narrower moustache

VOCALIZATION



Similar to Peregrine Falcon's when alarmed but higher pitched "kik kik kik kik"

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Chilliwack, Columbia, **Headwaters, Kamloops,** Kootenay Lake, **Okanagan Shuswap,** Peace, Prince George, Rocky Mountain, South Island, Squamish



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Prairie Falcon

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEC ZONES

BGxh1, BGxh2, BGxh3, BGxw, BGxw1, BGxw2
 BWBS
 CDF
 CWH
 ESSF
 IDFd1, IDFd2, IDFd3, IDFd4, IDFm1, IDFmw1,
 IDFmw2, IDFxh1a, IDFxh2a, IDFxm, IDFxw
 MSxk
 PPdh1, PPdh2, PPxh1, PPxh2
 SBS

ELEVATION

Nesting has been documented from 450–900 m.

IMPORTANT HABITAT FEATURES

- Inhabits valleys and river canyons with steep escarpments or rock-faces. These areas are usually are located near open grasslands or sagebrush steppes, which are used for hunting. Most breeding sites are near water.
- Nests are located on cliff faces.
- Structural stage: 1 (non-vegetated), 2 (herb), 3 (shrub/herb)

IMPORTANT HABITAT FEATURES

Breeds from the Okanagan and Nicola valleys of the Thompson-Okanagan Plateau region to the Chilcotin and Fraser River valleys of the Chilcotin-Cariboo Basin. Potential breeding habitat may exist in the east Kootenays, south of Windermere. Nonbreeding records exist for the Okanagan, Nicola, and South Thompson valleys, the Chilcotin-Cariboo Region, the east Kootenays, and the Peace River district. Almost all winter records are from the Okanagan Region.

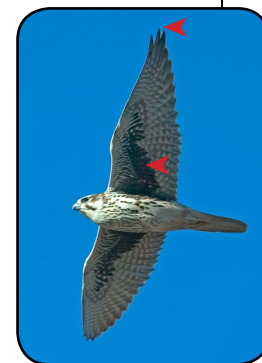


Photo: Bill Horn



Short-eared Owl

Asio flammeus



Photo: A.J. Hand

DESCRIPTION

- Medium-sized owl (Length: 40 cm, Wingspan: 95 cm) with long wings inhabiting open areas
- Round head, bright yellow eyes
- Tawny belly with vertical streaks
- In flight black 'wrist' patches are a good distinguishing feature
- Flight is moth-like with erratic wing beats typically carrying it low over the ground

VOCALIZATION



Generally silent except in breeding season soft "toot-toot-toots"

CONSERVATION STATUS

- SARA Schedule: 1 - Special Concern
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Blue

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades,** Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson, Fort St. James, Haida Gwaii, **Headwaters,** Kalum, **Kamloops,** Kootenay Lake, Mackenzie, Nadina, North Coast, North Island-Central Coast, **Okanagan Shuswap,** Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine-Bulkley, Skeena-Stikine-Cassiar, South Island, Squamish, Sunshine Coast, Vanderhoof



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Short-eared Owl

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEC ZONES

BGxh1, BGxh2, BGxh3, BGxw, BGxw1, BGxw2
 BWBSdk1, BWBSmw1
 CDFmm
 CWHdm, CWHvm1, CWHxm1, CWHxm2
 ICHmw2, ICHxw
 IDFdK1, IDFdK1a, IDFdK3, IDFdK4, IDFdm, IDFmw1, IDFmw2, IDFun, IDFxh1, IDFxh1a, IDFxh2, IDFxh2a, IDFxw, IDFxw
 MS
 PPdh1, PPdh2, PPxh1, PPxh1a, PPxh2
 SBPS
 SBSmh, SBSmk1
 SWBdk

ELEVATION

Near sea level to 975 m with some sightings up to 2,165 m

ADDITIONAL INFORMATION

Short-eared Owls breed locally on the south mainland coast, through the Fraser River delta east to Fort Langley, in the south and central Interior north through the Thompson and Chilcotin-Cariboo basins to Prince George, and in the Peace Lowland.

IMPORTANT HABITAT FEATURES

- Extensive open areas such as grasslands, savannahs, rangeland, or marshes are important breeding habitats.
- Nesting: in British Columbia most nests have been found in shrubby grassy areas adjacent to agricultural areas.
- Structural stage: Breeding: 2–3 or old-growth field; Wintering: 2–3a and old-growth field (Multi-year crop rotation).

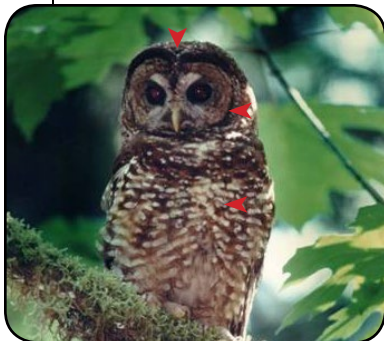


Photo: Hank Tseng



Spotted Owl

Strix occidentalis



CONSERVATION STATUS

- SARA Schedule:
1 - Endangered
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Red

DESCRIPTION

- A medium-sized owl (Length: 45 cm, Wingspan: 90 cm).
- Round head and large dark brown eyes surrounded by a tawny facial disk.
- Dark brown back with creamy-white spots and blotches.
- Chest and belly are barred

VOCALIZATION



A variety of hoots, barks and whistles. Most common call is a series of four hooting notes "hoo-hoo-hoo-hoo".

FOREST DISTRICTS

Cascades, Chilliwack, Squamish, Sunshine Coast

ELEVATION

0–1,370 m

BEC ZONES

CWHdm, CWHds1, CWHmm1, CWHms1, CWHms2, CWHvm1, CWHvm2
ESSFmw
IDFdk2, IDFww
MHmm1



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Spotted Owl

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

IMPORTANT HABITAT FEATURES

- Structural stage - 6 (mature forest), 7 (old forest)
- Superior Spotted Owl habitat (nesting, roosting, foraging, and dispersal):
 1. *Wetter ecosystems: maritime CWH and MH biogeoclimatic zones (CWHdm, CWHvm1, CWHvm2, MHmm1)*
 - ≥ 3 canopy layers, multi-species canopy dominated by large (> 75 cm dbh) overstorey trees (typically 37–185 stems/ha).
 - Moderate to high (60–80%) canopy closure.
 - ≥ 5 large (> 50 cm dbh) trees/ha with various deformities (e.g., large cavities, broken tops, dwarf mistletoe infections).
 - ≥ 5 large (> 75 cm dbh) snags/ha.
 - Accumulations (≥ 268 m³/ha) of fallen trees and other CWD on ground.
 2. *Drier ecosystems: sub-maritime CWH and MH, IDF, and ESSF biogeoclimatic zones (CWHds1, CWHms1, CWHms2, MHmm2, ESSFmw, IDFww)*
 - ≥ 3 canopy layers, multi-species canopy dominated by large (> 50 cm dbh) overstorey trees (typically 173–247 stems/ha, although densities as low as 86 stems/ha are possible where large diameter trees are present).
 - Moderate to high (60–85%) canopy closure.
 - ≥ 5 large trees/ha (> 30 cm dbh) with various deformities (e.g., large cavities, broken tops, dwarf mistletoe infections).
 - ≥ 7 large (> 50 cm dbh) snags/ha.
 - Accumulations (≥ 268 m³/ha) of fallen trees and other CWD on ground.

ADDITIONAL INFORMATION

The current known range of the Spotted Owl in British Columbia extends from the international border north about 200 km to Carpenter Lake, and from Howe Sound and Pemberton east about 160 km to the slopes of the Cascade Mountain range.

Spotted Owls do not create their owl nest structures, but use a variety of pre-formed structures that includes cavities in the side and top of trees, and platforms constructed by other birds or by natural accumulations of debris.



Western Screech-Owl, *macfarlanei* subspecies

Megascops kennicottii macfarlanei



Photo: Jared Hobbs

CONSERVATION STATUS

- SARA Schedule:
1 - Endangered
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Red

DESCRIPTION

- Small owl (Length: 20 cm, Wingspan: 50 cm) with yellow eyes and noticeable small gray ear tufts
- Generally cryptically coloured: Breast and belly are pale with dark streaks, back is brownish (coast) or brownish-grey (interior) with fine dark irregular streaking on the breast.
- Cavity nester

VOCALIZATION



Series of 7–20 soft notes of the same pitch, starting slowly and speeding up. Often compared to the sound of a bouncing ball.

FOREST DISTRICTS

Arrow Boundary, Campbell River, **Cascades**, Chilliwack, Kalum, **Kamloops**, Kootenay Lake, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Rocky Mountain, South Island, Squamish, Sunshine Coast



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Western Screech-Owl

SPECIES PHENOLOGY



BEC ZONES

BGxh1, BGxh2 (irregular), BGxw, BGxw1
ICHdw, ICHmw2, ICHxw (irregular)
IDFdk1, IDFdk2, IDFdk3, IDFdm1, IDFmw1,
IDFmw2, IDFxh1, IDFxh1a, IDFxh2 (irregular),
IDFxw
PPdh1, PPdh2, PPxh1, PPxh2

ELEVATION

Sea level to 700 m

IMPORTANT HABITAT FEATURES

- Breeding territories are closely associated with riparian habitats, particularly those dominated by black cottonwood (*Populus trichocarpa*), trembling aspen (*P. tremuloides*), and water birch (*Betula occidentalis*).
- Tree cavities are required for both nesting and roosting.
- Cavities most often used are those created by the Northern Flicker or Pileated Woodpecker.
- Nest trees decay class: 2–6.
- Structural stage - 6 (mature forest), 7 (old forest)

ADDITIONAL INFORMATION

The Interior Western Screech-Owl occurs in the Okanagan Valley. There are scattered records elsewhere in the southern Interior but no evidence of breeding. It probably breeds, at least irregularly, in the Thompson Valley between Chase and Spences Bridge. Breeding has recently been confirmed in the West Kootenays near Castlegar and Creston. A second subspecies, *M. k. kennicottii*, is listed as Special Concern on SARA Schedule 1 and is on the provincial blue list. It is visually similar to *M. k. macfarlanei*, but does not occur in the forest districts of interest.



Common Nighthawk

Chordeiles minor

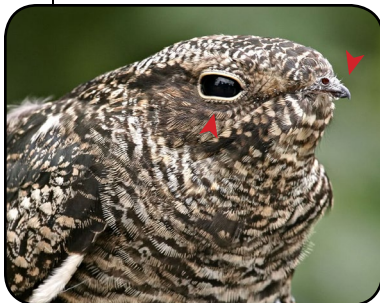


Photo: J. Genesisio

CONSERVATION STATUS

- SARA Schedule:
1 - Threatened
- Identified Wildlife:
No
- Included in SFMP:
No
- Provincial List:
Yellow

DESCRIPTION

- Medium-sized bird with long, narrow, pointed wings, and a long tail that is slightly notched.
- In flight distinctive white wing patches are evident.
- Plumage is dark brown with black, white, and buff specks.
- Head is large and flattened, the eyes are large, the bill is small, and the mouth is large.
- Flight pattern is erratic and “buoyant”.
- Only the small tip of the bill is usually visible, and this combined with the large eye and short neck gives the bird a big-headed look.

VOCALIZATION



While flying the call is a distinctive short and nasal “peet” or “beer”.

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson, Fort St. James, Haida Gwaii, **Headwaters**, Kalum, **Kamloops**, Kootenay Lake, Mackenzie, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar, South Island, Squamish, Sunshine Coast, Vanderhoof



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Common Nighthawk

SPECIES PHENOLOGY



BEC ZONES

BG, BWBS, CDF, CWH, ESSF, ICH, IDF, MH, MS, PP, SBPS, SBS, SWB

ELEVATION

Not available

IMPORTANT HABITAT FEATURES

This species nests in a wide range of open, vegetation-free habitats, including dunes, beaches, recently harvested forests, burnt-over areas, logged areas, rocky outcrops, rocky barrens, grasslands, pastures, peat bogs, marshes, lakeshores, and river banks. This species also inhabits mixed and coniferous forests. Eggs are laid directly on the ground.

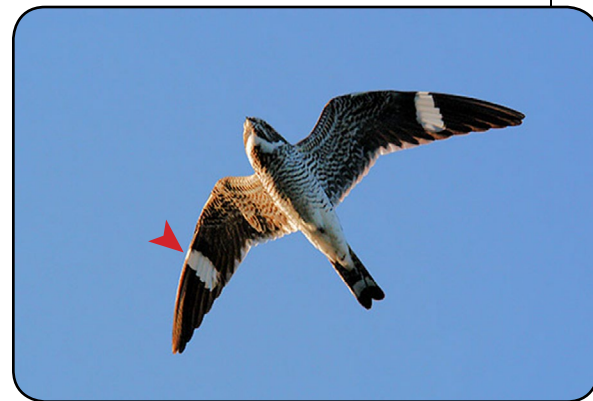


Photo: B. Schmoker



Band-tailed Pigeon

Patagioenas fasciata



Photo: Wikipedia

DESCRIPTION

- A largish pigeon measuring up to 40 cm long.
- Dark grey overall, with a purple-grey head and a distinctive white crescent on a patch of iridescent green-bronze on the hindneck.
- In flight, the tail appears dark with a lighter grey band across the tip (hence the species' name).
- Feet and legs are yellow, as is the bill, which has a black tip.
- The wings produce a clapping sound on takeoff, and flight is usually swift and direct.
- The sexes are similar in colour, but females are duller and slightly smaller than males. Juveniles are similar to females but are even duller and lack the white crescent on the hind neck.
- Very similar in size and appearance to the Rock Pigeon, especially at a distance.

VOCALIZATION



Frequently gives a series of 'coos' of one to three notes described as a "hoop- a-whoo" and typically repeated numerous times. Owl-like.

CONSERVATION STATUS

- SARA Schedule: 1 - Special Concern
- Identified Wildlife: No
- Included in SFMP: No
- Provincial List: Blue



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Band-tailed Pigeon

SPECIES PHENOLOGY



FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort St. James, Haida Gwaii, **Headwaters**, Kalum, **Kamloops**, Kootenay Lake, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Prince George, Rocky Mountain, Skeena Stikine - Bulkley, South Island, Squamish, Sunshine Coast

BEC ZONES

CDF, CWH, JCH, IDF, MS, SBS

ELEVATION

Sea level to 760m

IMPORTANT HABITAT FEATURES

This species typically breeds in natural and human-made habitats, including edges and openings in mature forests, city yards and parks, wooded groves, open bush land, orchards and golf courses. In the interior, it occurs in high-elevation forests. Areas with flowering and berry-producing trees and shrubs provide foraging habitat. During the fall migration, Band-tailed Pigeons are highly noticeable when they occur in relatively large flocks, typically in agricultural fields or in clearcuts where fruit-bearing shrubs are abundant. The species winters in both coniferous and deciduous woodlands, favouring openings and edges where berries, such as madrone, and oak acorns may occur.



Photo: J. Higbee



Brewer's Sparrow, *breweri* subspecies

Spizella breweri breweri



Photo: Jared Hobbs

DESCRIPTION

- Plain-looking sparrow
- Long dark brown tail
- Brown crown with fine black streaks
- Pale eyebrow
- Dull pink bill
- Light grey breast
- Grayish-brown, finely streaked back and wings

VOCALIZATION



Long complex song that is composed of insect-like buzzes and clear trilling notes.

CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Red

FOREST DISTRICTS

Kamloops, Okanagan Shuswap

BEC ZONES

BGxh1, suspected in BGxh2, possible in BGxh3, BGxw, BGxw1, IDFdK1, IDFdK1a, IDFdM1, IDFdM2, IDFxh1, IDFxh1a, IDFxh2, IDFxh2a, PPdh2, PPxh1, PPxh1a, PPxh2, PPxh2a



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Brewer's Sparrow, *breweri* subspecies

SPECIES PHENOLOGY



ELEVATION

Nesting generally occurs at 340–750 m.

IMPORTANT HABITAT FEATURES

- Nests in sagebrush dominated shrub-steppe habitats primarily within the Great Basin region in the south Okanagan and Similkameen valleys but may occur as far north as the Chilcotin.
- Likely to be found in areas with large well-developed perennials such as parsnip-flowered buckwheat (*Eriogonum heracleoides*) and lupine (*Lupinus sericeus*) and at sites higher in elevation and moisture, and with more lush vegetation.
- Post fledging adults and juveniles have been observed to use aspen or shrub dominated ravines.
- Structural Stage: Nesting: 2 (herb), 3a (low shrub)
Post-fledgling: 4 [pole/sapling (aspen stands)]

ADDITIONAL INFORMATION

This species occurs west of the Okanagan River, from the Marron Valley south to Kilpoola Lake near the International Boundary.



Grasshopper Sparrow

Ammodramus savannarum



CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: No
- Provincial List: Red

DESCRIPTION

- Small (11–13 cm) flat-headed grassland sparrow.
- Conspicuously unmarked buff face and large bill.
- The head has a dark, blackish crown that is narrowly streaked with buff and divided by a pale buffy-white crown stripe.
- Nape is greyish, with fine chestnut or reddish brown streaks. The back is streaked with chestnut, rust and black, with yellow wing edges. Tail is short and sharp.
- Breast is unstreaked and belly is whitish.

VOCALIZATION



Thin buzzy trill sometimes preceded by an introductory note “tic-zzzzzz”.

FOREST DISTRICTS

Arrow Boundary, Cascades, Central Cariboo, Chilliwack, Okanagan Shuswap, South Island



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Grasshopper Sparrow

SPECIES PHENOLOGY



BEC ZONES

BGxh1, BGxh2, BGxw, BGxw1
CDF
IDFd1a, IDFxh1, IDFxh1a, IDFxh2, IDFxh2a
PPxh1

ELEVATION

Breeding activity occurs mainly between 300 and 500m although nests have been found between 1,000 and 1,160m.

IMPORTANT HABITAT FEATURES

- Typically select moderately open grasslands with patchy bare ground.
- Nesting: Generally found in bluebunch wheatgrass habitats, including bunchgrass-sagebrush associations.
- Structural stage: 2 (herb), 3a (low shrub)

ADDITIONAL INFORMATION

Largely restricted to the Okanagan and lower Similkameen valleys, occurring mainly between Osoyoos Lake in the south, and Goose Lake north of Vernon, and west through Richter Pass to Chopaka in the southern Similkameen Valley. In these valleys, Grasshopper Sparrows favour sites with relatively sparse sagebrush cover, and an abundance of cheatgrass and pasture sage.



Photo: Dominic Sherony



Olive-sided Flycatcher

Contopus cooperi



CONSERVATION STATUS

- SARA Schedule:
1 - Threatened
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Blue

DESCRIPTION

- A large (18-20 cm) flycatcher with a large head and a proportionately short tail
- Plumage is brownish-olive above (brownier on juveniles) with a dull white to yellowish throat, breast, and belly.
- The streaked or mottled chest patches are darker.
- Sexes are similar in body size
- The wings are dark with pale, indistinct wing bars, and the bill is stout.
- The most distinctive features of the Olive-sided Flycatcher are its tendency to conspicuously perch on the top of tall trees or snags while foraging and its unique vocalization.

VOCALIZATION



The song is a loud, three-note whistle "Quick, THREE BEERS!" delivered by the male, generally from the top of an upright dead snag or living tree—often the tallest in the area. The call is a trebled "pip-pip-pip".



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Olive-sided Flycatcher

SPECIES PHENOLOGY

					Young						
					Eggs						
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson, Fort St. James, **Headwaters**, Kalum, **Kamloops**, Kootenay Lake, Mackenzie, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar, South Island, Squamish, Sunshine Coast, Vanderhoof

BEC ZONES

BWBS, CDF, CWH, ESSF, ICH, IDF, MH, MS, PP, SBPS, SBS, SWB

ELEVATION

From near sea level to approximately 2,200 m. In the interior, it is a scarce breeder in valley bottoms but becomes more abundant at higher elevations. In the Okanagan Valley, most breeding records were from above 900 m elevation within the Douglas-fir zone. However, there are records from lower elevations at Richter Lake (600 m) and Okanagan Landing.

IMPORTANT HABITAT FEATURES

This species is most often associated with open areas containing tall trees or snags for perching. Open areas may be forest openings, forest edges near natural openings (such as rivers, muskeg, bogs or swamps) or human-made openings (such as logged areas), burned forest or open to semi-open mature forest stands. Generally, forest habitat is either coniferous or mixed coniferous.



Photo: Dominic Sheronoy



Rusty Blackbird

Euphagus carolinus



Male Rusty Blackbird
Photo: Wikipedia

DESCRIPTION

- Medium-sized passerine with a slightly rounded tail that is as long as its wings
- Both sexes have pale yellow eyes and a black, slightly curved bill.
- During the breeding season, the adult male is uniformly black, with a faint greenish gloss to its body and slight violet gloss to its head and neck.
- Female is brownish grey with no gloss
- In winter, the plumage of both sexes is more rust-colored.

CONSERVATION STATUS

- SARA Schedule: 1 - Special Concern
- Identified Wildlife: No
- Included in SFMP: Yes
- Provincial List: Blue

- In the western provinces, the Rusty Blackbird can easily be confused with the Brewer's Blackbird (*E. cyanocephalus*), which has similar plumage and morphology. However, the Brewer's Blackbird has a longer bill and the male's head is iridescent green.

VOCALIZATION



Song consists of two or three notes, followed by a higher, rising note, like the creak of rusty hinges. Call note is a harsh "chek."



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Rusty Blackbird

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson, Fort St. James, Haida Gwaii, **Headwaters**, Kalum, **Kamloops**, Kootenay Lake, Mackenzie, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar, South Island, Squamish, Sunshine Coast, Vanderhoof

BEC ZONES

BG, BWBS, CDF, CWH, ESSF, MS, PP, SBPS, SBS, SWB

ELEVATION

Low to mid-elevations

IMPORTANT HABITAT FEATURES

- Boreal forest
- Habitat is characterized by forest wetlands, such as slow moving streams, peat bogs, sedge meadows, marshes, swamps, beaver ponds and pasture edges.
- In winter, it occurs primarily in damp woodlands and cultivated fields.
- Nests are in trees or shrubs hanging over or near standing water.



Female Rusty Blackbird
Photo: Wikipedia



Sage Thrasher

Oreoscoptes montanus



Photo: George Vlahakis

CONSERVATION STATUS

- SARA Schedule: 1 - Endangered
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Red

DESCRIPTION

- Robin-sized songbird (Length: 22 cm)
- Short, straight bill
- Gray-brown back with boldly streaked chest and belly
- Distinguishing characteristics: yellow eyes, two white wing bars and white tips on tail feathers

VOCALIZATION



A long series of rich warbling notes. Call note a low "Chup"

FOREST DISTRICTS

100 Mile House, Cascades,
Chilliwack, Columbia, **Kamloops,**
Kootenay Lake, North Island
- Central Coast, **Okanagan**
Shuswap, South Island

BEC ZONES

BGxh1, BGxh2
CDF
CWH
ICH
IDF
PP

ELEVATION

300–500 m



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Sage Thrasher

SPECIES PHENOLOGY



IMPORTANT HABITAT FEATURES

- Nesting: Almost entirely dependent on sagebrush habitats during the breeding season. Other nest tree species reported in the Okanagan included an orchard peach tree, red hawthorn (*Crateagus columbiana*), and saskatoon (*Amelanchier alnifolia*).
- Nesting Habitat: sites with medium-sized sagebrush (30–60 cm high), with some larger sagebrush (>1 m) for nesting are preferred.
- Structural stage: 2 (herb), 3a (low shrub)

ADDITIONAL INFORMATION

In British Columbia, the Sage Thrasher is still reported annually from the Chopaka border crossing along Nighthawk Road, in the Richter Pass/Kilpoola Lake area, and almost annually from White Lake near Oliver. Singing birds have been reported from Vernon, the Thompson Valley at Lac du Bois, the Fraser Valley near Spences Bridge, and east of Oliver.



Sage Thrasher nest in sagebrush.



Yellow-breasted Chat

Icteria virens



DESCRIPTION

- The largest warbler occurring in British Columbia (Length: 19cm, Wingspan: 25cm)
- Heavy dark bill
- Bright yellow chin, throat, and breast
- Olive-green back
- A bold white stripe from the bill back over the eye is distinct. White patches are also present under the eye and from the base of the bill back over the jaw.
- Due to their secretive behaviour, the song is often the only clue to their identification.

CONSERVATION STATUS

- SARA Schedule: 1- Endangered
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Red

VOCALIZATION



The song is comprised of assorted clear, alternating scolds, whistles, mews, grunts, rattles, cackles, and squeaks.

Often sings at night.

ELEVATION

250–800 m in the Interior

BEC ZONES

BGxh, BGxw
CDF, CWHdm
ICH, IDF
PPdh, PPxh
SBS



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Yellow-breasted Chat

SPECIES PHENOLOGY



FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades**, Central Cariboo, Chilliwack, Columbia, **Headwaters**, **Kamloops**, Kootenay Lake, Mackenzie, **Okanagan Shuswap**, South Island

IMPORTANT HABITAT FEATURES

- Riparian habitats, particularly black cottonwood (*Populus balsamifera*) and water birch (*Betula occidentalis*) stands with dense understorey thickets of rose, willow, and common snowberry (*Symphoricarpos albus*).
- Chats also occupy dense forest-edge thickets where Columbian hawthorn (*Crataegus columbiana*), trembling aspen (*Populus tremuloides*), choke cherry (*Prunus virginiana*), snowberry, and Prairie Rose (*Rosa woodsii*) provide a dense undergrowth.
- Density of shrub cover is apparently more important than species composition of a thicket.
- Nesting: Most nests found in British Columbia have been located in rose bushes, but snowberry and willow have also been used. Nests are well concealed in dense shrubbery usually 0.6-0.9m above the ground, are often overgrown with vines, and are under a canopy of cottonwood or water birch.
- Foraging: Within dense riparian breeding habitats during the nesting season.
- Structural stage - 3a (low shrub), 3b (high shrub)

ADDITIONAL INFORMATION

This species breeds in the extreme southern portions of the province in the Okanagan and Similkameen valleys. Singing males are occasionally reported from Creston and the Thompson and Fraser River valleys, as far north as the Chilcotin.



Photo: Greg Gillson



Great Blue Heron, *herodias* subspecies

Ardea herodias herodias



CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Blue

DESCRIPTION

- Largest wading bird in North America (Height: 60 cm; Length: 97–137 cm).
- Blue-gray body
- Long neck
- Large yellow or pale-coloured bill
- Black crown with short black plumes extending from the back of the head
- Yellowish legs
- Flies with deep, slow wing beats with their necks folded in an S-shape.
- Nest in colonies in coniferous or deciduous trees.

VOCALIZATION



Hoarse “croak”. Usually silent.



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Great Blue Heron, *herodias* subspecies

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

ELEVATION

Lowlands and valley bottoms of the Interior. However, nesting and occurrences have been documented to 1,100 m.

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Columbia, **Headwaters,** Kalum, **Kamloops,** Kootenay Lake, Nadina, **Okanagan Shuswap,** Peace, Prince George, Quesnel, Rocky Mountain, Vanderhoof

BEC ZONES

BG
ICHdw, ICHmk1, ICHmk2, ICHmk3, ICHmw2, ICHmw3, ICHxw
IDFdK3, IDFdM2, IDFmw1, IDFmw2, IDFun, IDFxh1, IDFxh2
MSdk
PPdh2, PPxh1, PPxh2
SBSdw1



Great Blue Heron rookery
Photo: Rhiannon Hamdi

IMPORTANT HABITAT FEATURES

- Great Blue Heron colonies occur in relatively contiguous forest, fragmented forest, and solitary trees.
- In the southeastern interior the most common tree used for nesting is black cottonwood (54%). Other important tree species are Douglas-fir, western white pine, hybrid white spruce, lodgepole pine, ponderosa pine, western redcedar, and western hemlock.
- Important foraging habitats include aquatic areas such as riverbanks, lakeshores, and wetlands.
- Structural stage (breeding): 5 (young forest), 6 (mature forest), 7 (old forest).



Long-billed Curlew

Numenius americanus

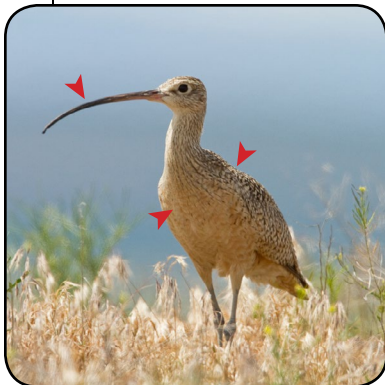


Photo: Jared Hobbs

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Blue

DESCRIPTION

- Large shorebird (Length: 55 cm, Wingspan: 90 cm)
- Extremely long bill that curves downward
- Mottled, light brown plumage and buff-coloured breast
- Cinnamon wing linings visible during flight
- Found primarily in open grassland habitats during the breeding season.

VOCALIZATION



Loud, clear rising “cur-lee” often repeated 3-4 times and a loud “wit-wit, wit-wit, wit wit wit”.

FOREST DISTRICTS

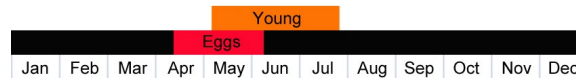
100 Mile House, Campbell River, **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, **Headwaters**, **Kamloops**, Kootenay Lake, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Prince George, Quesnel, Rocky Mountain, South Island



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Long-billed Curlew

SPECIES PHENOLOGY



BEC ZONES

BGxh1, BGxh2, BGxh3, BGxw, BGxw1, BGxw2
CDF
CWH
ICHxw
IDFdk1, IDFdk2, IDFdk3, IDFdk4, IDFdm2, IDFmw1, IDFmw2,
IDFmw2a, IDFxh1, IDFxh1a, IDFxh2, IDFxh2a, IDFxh3, IDFxh4,
PPdh1, PPdh2, PPxh1, PPxh2, PPxh2a
SBPS
SBSdh, SBSdw3, SBSmk1

ELEVATION

280–1,220 m

IMPORTANT HABITAT FEATURES

- Breeding Habitat: areas with maximum visibility including large contiguous openings of gentle sloping grassland.
- Nesting: generally areas with low vegetation (< 10 cm tall preferred).
- Structural stage - 2 (herb)

ADDITIONAL INFORMATION

- Breeding areas are fairly disjunct and include areas from Lillooet north to Quesnel (Chubb Lake), the Chilcotin west to Alexis Creek, the south Okanagan and lower Similkameen valleys, the North Okanagan, the Thompson-Nicola, and the East Kootenay Trench.
- Nests are shallow scrapes on the ground with four eggs.



Photo: Jerry Kirkhart



Sandhill Crane

Antigone canadensis



Photo: Tom Bentley

DESCRIPTION

- Large grey wading bird (Length: 100 cm; Wingspan: 185 cm) that is often confused with the Great Blue Heron.
- Long straight neck and dark legs.
- Red crown with grey plumage.
- Young are more brownish and lack a red crown.
- Flies with neck extended (Great Blue Herons fly with neck in an S-shape) in large noisy flocks. Black wingtips are visible.

VOCALIZATION



Call is a deep rattling, croaking or bugling "garooooooooo" that can be heard from long distances.

CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: No
- Provincial List: Yellow

ELEVATION

Breeding: Sea level to 1,220 m
Non-breeding: Sea level to 1,510 m

BEC ZONES

BWBSdk1, BWBSdk2, BWBSmw1, BWBSmw2
CWH
ESSF
ICH
IDFdk1, IDFdk1a, IDFdk1b, IDFdk2, IDFdk3, IDFdk4, IDFmw1, IDFmw2, IDFmw2a
MS
PP
SBPSm (dc, mc, mk, xc)
SBSdk1, SBSdw1, SBSdw2, SBSdw3, SBSmc, SBSmc1, SBSmc2, SBSmc3, SBSmh, SBSmk1, SBSmk2, SBS mw



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Sandhill Crane

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson, Fort St. James, Haida Gwaii, **Headwaters**, **Kamloops**, Mackenzie, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Peace, Prince George, Quesnel, Rocky Mountain, Vanderhoof

IMPORTANT HABITAT FEATURES

- Breeding habitats: isolated bogs, marshes, swamps and meadows, and other secluded shallow freshwater wetlands generally > 1 ha in size surrounded by forest cover.
- Foraging: shallow wetlands, marshes, swamps, fens, bogs, ponds, meadows, estuarine marshes, intertidal areas, and dry upland areas such as grasslands and agricultural fields.

ADDITIONAL INFORMATION

Known breeding areas include much of the Central Interior ecoprovince (especially the Chilcotin Plateau, Cariboo Basin, and Nazko Upland), the Queen Charlotte Islands, central mainland coast, Mara Meadows near Enderby, East Kootenay Trench, Fort Nelson Lowland, and Fraser Lowland. Stopover points for migrating Sandhill Cranes include White Lake in the south Okanagan, Lac Le Jeune in the Kamloops area, Becher's Prairie near Williams Lake, the Kispix Valley north of Smithers, Nig Creek northwest of Fort St. John and Liard Hot Springs in north-central British Columbia.

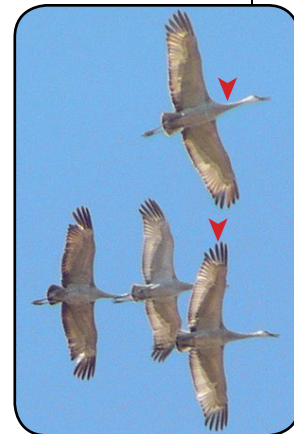


Photo: Patricia Velte



Sharp-tailed Grouse, *columbianus* subspecies

Tympanuchus phasianellus columbianus



Displaying male on a dancing ground (Lek)
Photo: Scott Neilsen

DESCRIPTION

- Medium-sized grouse (Length: 41–48 cm; Wingspan: 64 cm).
- Displaying male: short, pointed tail with white outer tail feathers. Pink air sacks on neck and yellow comb over eyebrow.
- Head, neck, and back are heavily barred dark brown, black, and buff
- Finely marked chest and belly with white spots on wings.
- Wedge-shaped tail; two middle tail feathers extend past other tail features.
- Flight: rapid wing beats alternating with short glides.

CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Blue

VOCALIZATION



Silent except during courting displays where the male's call resembles a dove's "hoo" or "hoo hoo".

BEC ZONES

BGxh1, BGxh2, BGxh3, BGxw, BGxw1, BGxw2
IDF
PP
SBPSxc
SBSdk, SBSdw2, SBSdw3, SBSmh

ELEVATION

Breeding: 275–1,190 m



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Sharp-tailed Grouse, *columbianus* subspecies

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Chilcotin, **Kamloops, Okanagan Shuswap**, Prince George, Quesnel, Rocky Mountain, Vanderhoof

IMPORTANT HABITAT FEATURES

- Courtship: dancing grounds (Leks) are often located on ridge tops or elevated ground but not necessarily the highest ground available.
- Nesting: Sharp-tailed Grouse are ground-nesters, with nests usually located in dense grass cover (minimum height of 25cm).
- **Key grassland habitat:**
 - Climax grasslands of the Ponderosa Pine and Bunchgrass biogeoclimatic zones, and grassland phases of the Interior Douglas-fir biogeoclimatic zone.
 - Seral grasslands resulting from fire or harvesting of lodgepole pine stands of the Interior Douglas fir, Sub-boreal Pine-Spruce and Sub-boreal Spruce biogeoclimatic zones. The most abundant grass species is pine grass (*Calamagrostis rubescens*). Common shrubs are prickly rose (*Rosa acicularis*), soopolallie (*Shepherdia canadensis*), common juniper (*Juniper communis*) and kinnikinnick (*Arctostaphylos uva-ursi*), all of which are seasonal food sources.
- **Foraging:**
 - Fall: Disturbed areas such as roadsides and landings with abundant greens such as clovers, dandelion, and yarrow are heavily used.
 - Winter: Riparian areas rich in deciduous shrub and tree species provide berries, palatable catkins, and twigs for important winter feeding habitat.



Photo: John Cassidy

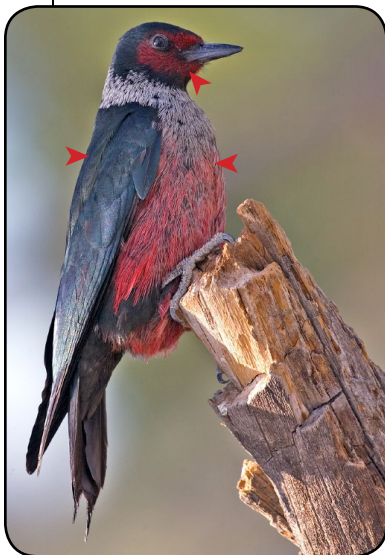
ADDITIONAL INFORMATION

In British Columbia, the Columbian subspecies is found from near Vanderhoof south to Merritt, east to the Cariboo Mountains, and west to the Coast Ranges.



Lewis's Woodpecker

Melanerpes lewis



CONSERVATION STATUS

- SARA Schedule:
1 - Threatened
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Red

VOCALIZATION



Main call is a harsh "churr" uttered in a series of 3–8 notes.

Drum is short and weak, medium speed, followed by several individual taps.

BEC ZONES

BGxh1, BGxh2, BGxh3, BGxw,
BGxw1, BGxw2
CDF
CWH
ICHdw, ICHmk1, ICHmw2,
ICHmw3, ICHxw
IDFdk1, IDFdk2, IDFdk3, IDFdk4,
IDFdm, IDFdm1, IDFdm2, IDFdw,
IDFmw1, IDFmw2, IDFmw3,
IDFmw4, IDFmw5, IDFmw6,
IDFmw7, IDFmw8, IDFmw9,
IDFmw10, IDFmw11, IDFmw12,
IDFmw13, IDFmw14, IDFmw15,
IDFmw16, IDFmw17, IDFmw18,
IDFmw19, IDFmw20, IDFmw21,
IDFmw22, IDFmw23, IDFmw24,
IDFmw25, IDFmw26, IDFmw27,
IDFmw28, IDFmw29, IDFmw30,
IDFmw31, IDFmw32, IDFmw33,
IDFmw34, IDFmw35, IDFmw36,
IDFmw37, IDFmw38, IDFmw39,
IDFmw40, IDFmw41, IDFmw42,
IDFmw43, IDFmw44, IDFmw45,
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IDFmw85, IDFmw86, IDFmw87,
IDFmw88, IDFmw89, IDFmw90,
IDFmw91, IDFmw92, IDFmw93,
IDFmw94, IDFmw95, IDFmw96,
IDFmw97, IDFmw98, IDFmw99,
IDFmw100

ELEVATION

Nests at elevations from
250–1,160 m

DESCRIPTION

- Large woodpecker (Length: 27 cm, Wingspan: 55 cm)
- Red face
- Gray collar around neck
- Dark black wings and tail
- Pinkish-red belly
- Young are similar to adults but lack the red face and grey collar.
- Flight: does not undulate during flight like other woodpeckers. Its overall dark appearance, large size, and slow, steady wing beats give it a crow-like appearance



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Lewis's Woodpecker

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades**, Central Cariboo, Chilliwack, Columbia, Fort St. James, Haida Gwaii, **Headwaters**, **Kamloops**, Kootenay Lake, North Island - Central Coast, **Okanagan Shuswap**, Prince George, Rocky Mountain, Skeena Stikine - Bulkley, Sunshine Coast, Vanderhoof

IMPORTANT HABITAT FEATURES

- Deciduous groves (e.g., mature cottonwood stands), open ponderosa pine forests, recent burns, sagebrush/pine/bunchgrass grasslands, agricultural areas, and urban environments.
- Breeding habitat: characterized by an open canopy (e.g. <25% crown closure), the availability of suitable dead or dying trees (>30 cm dbh) for a nesting site, and understorey vegetation that provides an abundant supply of insects.
- Nest trees: Ponderosa pine and black cottonwood comprise the majority of nest tree species. Live trees and dead trees with heartrot provide suitable nesting trees. Softer snags are preferred.
- In closed canopy riparian stands, nests are usually located near the edge of the stand.
- Structural stage
 - 2 (herb) – foraging for ants, beetles and other insects.
 - 3 (shrub) – for foraging when insects are abundant.
 - 5 (immature forest) – particularly in black cottonwood stands.
 - 6 (mature forest) – black cottonwood, ponderosa pine and oak stands.
 - 7 (old-growth forest) – black cottonwood, ponderosa pine and oak stands.

ADDITIONAL INFORMATION

Breeds locally throughout the southern Interior of British Columbia from the Similkameen Valley, east to the East Kootenay (e.g., Invermere south to Newgate and the Tobacco Plains) and north to the Chilcotin-Cariboo area. It is most abundant in the south Okanagan.



White-headed Woodpecker

Picoides albolarvatus



Male White Headed Woodpecker
Photo: Jared Hobbs

DESCRIPTION

- Robin-sized woodpecker (Length: 23 cm, Wingspan: 40 cm).
- Black body
- White crown, face, throat, and wing patch
- Males have a distinctive red patch at the back of the head
- Females lack the red patch on the back of the head, but are similar to the male in other markings.
- Unique among North American woodpeckers in having entirely black body plumage and tail, with only the face, throat, crown, and large patch at the base of the primaries white.

ELEVATION

350–1,300 m; rarely above 1000 m

CONSERVATION STATUS

- SARA Schedule: 1 - Endangered
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Red

VOCALIZATION



Sharp 2 or 3 note "Peek-it", usually descending.

Drum is medium speed, fairly long with increasing or decreasing tempo.

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River (presumed extirpated), **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort St. James, Haida Gwaii, **Headwaters**, **Kamloops**, Kootenay Lake, North Island - Central Coast, **Okanagan Shuswap**, Pringle George, Rocky Mountain, Skeena Stikine - Bulkley, South Island, Sunshine Coast, Vanderhoof



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White-headed Woodpecker

SPECIES PHENOLOGY

Young											
Eggs											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

IMPORTANT HABITAT FEATURES

- Prefers mature and old forests (i.e., structural stage classes 6–7). These forests are structurally complex, typically contain snags and coarse woody debris at all stages of decomposition, and have open or patchy understoreys (<70% canopy cover is preferred).
- Nesting: The more decayed, large diameter snags (wildlife tree classes 5–6), often with broken tops, are preferred trees for nesting. Leaning or broken topped snags or stumps are commonly used as nest trees, often where heart rot has created a soft interior but left the exterior hard. Most located nests have been found in or on the edge of forest clearings.
- Foraging: Dependent on open ponderosa pine (primarily) and mixed pine – Douglas-fir forests up to 1,000 m elevation, very rarely moving into engelmann spruce – lodgepole pine forests up to 1,300m.
- Structural stage: 6 (mature forest), 7 (old forest)

BEC ZONES

BGxh (breeding)
ICH
IDFdk, IDFdm, IDFxh, IDFxm, IDFxw (very incidentally)
PPxh (breeding)

ADDITIONAL INFORMATION

This species is a very rare resident in the Okanagan Valley from Naramata south, and occasionally resides in the Similkameen Valley, Grand Forks area, and the Kootenays. Unsubstantiated sightings in suitable habitat have also been reported from Lytton, Manning Park, Bummers Flats north of Cranbrook, and south of Golden.

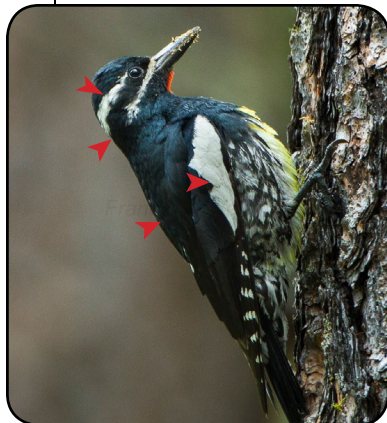


Female White Headed
Woodpecker
Photo: Jared Hobbs



Williamson's Sapsucker

Sphyrapicus thyroideus



Male Williamson's Sapsucker
Photo: Francesco Veronesi

DESCRIPTION:

- Robin-sized woodpecker (Total length: 22.5–23 cm)

Male:

- Black head with white stripes behind and below the eyes
- Black back
- Black wings with large white wing patch
- Yellow belly
- Mature males have red throat (immature males have white throat)

Female:

- Less colourful than male with a pale brown head.
- Pale brown back with black bars
- Yellow belly

FOREST DISTRICTS

Arrow Boundary, Cascades, Chilliwack, Kamloops, Okanagan Shuswap

CONSERVATION STATUS

- SARA Schedule: 1 - Endangered
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Blue

VOCALIZATION



Voice: Scolding "chur" but generally silent.

Drumming: first 'tap' trails off like a drummer letting a drumstick fall on a drum followed by three or four other drums that do not trail off.

BEC ZONES

BG
ICH
IDFdk1, IDFdk1a, IDFdk2, IDFdm, IDFdm1, IDFdm2, IDFmw1, IDFmw2, IDFun, IDFxh1, IDFxh1a, IDFxh2, IDFxh2a, IDFxw
MSdk, MSdm1, MSdm2, MSxk
PPdh1, PPdh2, PPxh1, PPxh1a, PPxh2, PPxh2a)



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Williamson's Sapsucker

SPECIES PHENOLOGY



ELEVATION

Generally breeds at elevations between 850 and 1,490 m. In the Okanagan, breeding occurs between 1,050 and 1,200 m elevation. West of Cache Creek and near Merritt, nests have been found between 850 and 1,100 m elevation.

IMPORTANT HABITAT FEATURES

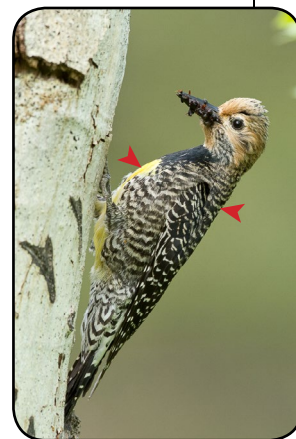
- Nesting: In general, most nests in British Columbia are found in coniferous trees, with Western larch accounting for the majority. Ponderosa pine (especially near Princeton), Douglas-fir, lodgepole pine, engelmann spruce, white spruce, paper birch, and black cottonwood are also used for nesting. In the western part of its range in British Columbia (ie: near Merritt and Cache Creek), trembling aspen appears to be the preferred nest tree species.

Require large, live or recently dead trees with advanced heartwood decay (i.e., >30cm dbh. Coniferous trees are usually >50cm dbh).

- Foraging: Live trees, in open to semi-open (<75% canopy cover) mixed coniferous forests that include western larch, Douglas-fir, grand fir, and trembling aspen.
- Structural Stage: Nesting: 6–7 / Foraging: 4–7

ADDITIONAL INFORMATION

- This species breeds in southern British Columbia from Lightning Lakes in Manning Provincial Park north to Botanie Creek and Hat Creek, east to Scottie Creek, Louis Creek and Greenwood.
- Williamson's Sapsuckers feed exclusively on conifer sap and phloem during the pre-nesting period. After nestlings are present the diet shifts to mainly carpenter ants.



Female Williamson's Sapsucker
Photo: Jared Hobbs



Bull Trout

Salvelinus confluentus

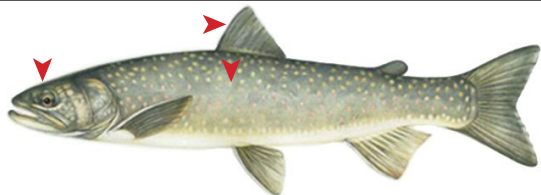


Illustration: Karl Geist

DESCRIPTION

- Large head and jaws in relation to their long, slender body.
- Head is broader and flatter than dolly varden.
- Colour ranges from green to greyish-blue with lake-resident fish often displaying silvery sides
- Back and flanks are spotted with pale yellowish-orange spots.
- No black spots on dorsal fin (this distinguishes it from other species of char and trout native to western Canada).
- Pelvic and anal fins of mature males have white leading edges that progress to a black band fading to grey and ending with a bright orange trailing edge.
- Length at maturity: 20–33 cm (stream residents. Larger for lake residents).

CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Blue

BEC ZONES

BG, BWBS, CWH, ESSF, ICH, IDF, MS, PP, SBPS, SBS, SWB

ELEVATION

It is thought that water temperature is a more important determining factor for bull trout distribution in British Columbia.



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Bull Trout



FOREST DISTRICTS

100 Mile House, Arrow Boundary (absent in Kettle River), **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson (absent in Petitot and Hay River drainages), Fort St. James, **Headwaters**, Kalum, **Kamloops**, Kootenay Lake, Mackenzie, Nadina, North Coast, North Island - Central Coast (mainland portion), **Okanagan Shuswap** (absent in Similkameen and Okanagan rivers), Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar (absent in Alsek drainage and all upper Yukon drainage except for Swan Lake in Teslin system), South Island, Squamish, Sunshine Coast, Vanderhoof

IMPORTANT HABITAT FEATURES

- Bull trout are cold water specialists (generally not found in water greater than 15°C).
- Spawn in flowing water below 9°C and show a preference for gravel and cobble sections in smaller, lower order rivers and streams.
- Spawning sites are characterized by low gradients (~1.0–1.5%); clean gravel (< 20 mm); water velocities of 0.03–0.80 m/s; and cover in the form of undercut banks, debris jams, pools, and overhanging vegetation.
- Structural stages: generally 5–7 (mature).

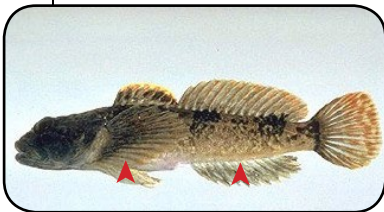
ADDITIONAL INFORMATION

Bull trout are found in almost every major mainland drainage, including those major coastal drainages that penetrate the Coast Mountains into the interior of the province (e.g., Fraser, Hemahtko, Klenakini, Bella Coala, Dean, Skeena and Nass rivers).



Columbia Sculpin

Cottus hubbsi



CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Blue

DESCRIPTION

- Small, typically sculpin shaped fish reaching 10–11 cm in length.
- Dark mottling on fins and body.
- Distinct from other sculpins based on several features:
 - no prickles covering the entire body (i.e., only found behind the pectoral fin)
 - well-developed pelvic fin rays
 - 11–15 anal fin rays

FOREST DISTRICTS

Arrow Boundary, Cascades, Kootenay Lake, Okanagan Shuswap

BEC ZONES

BG, ICH, IDF, PP

ELEVATION

370–1,372 m



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Columbia Sculpin



IMPORTANT HABITAT FEATURES

Rocky areas below riffles in cool rivers and streams. Sometimes occurs in montane lakes.

ADDITIONAL INFORMATION

Found in the Kettle River below Cascade Falls, the Columbia and Kootenay rivers below Arrow Lakes and Kootenay Lake, and the Flathead River and its lower tributaries.

Cutthroat Trout, *lewisi* subspecies

Oncorhynchus clarkii lewisi



Photo: Tom Davenport

DESCRIPTION

- Distinctive red slash that occurs just below both sides of the lower jaw.
- Small irregular-shaped spots along their back, dorsal, and caudal fins.
- Bright yellow, orange, and/or red colours along the belly, especially among males during the spawning season.
- Adults rarely exceed an overall length of 50 cm in lake- or stream-dwelling populations.

CONSERVATION STATUS

- SARA Schedule: 1 - Special Concern
- Identified Wildlife: Yes
- Included in SFMP: No
- Provincial List: Blue

FOREST DISTRICTS

Arrow Boundary, Columbia, Fort Nelson, **Headwaters**, Kootenay Lake, **Okanagan Shuswap**, Peace, Rocky Mountain



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Cutthroat Trout, *lewisi* Subspecies

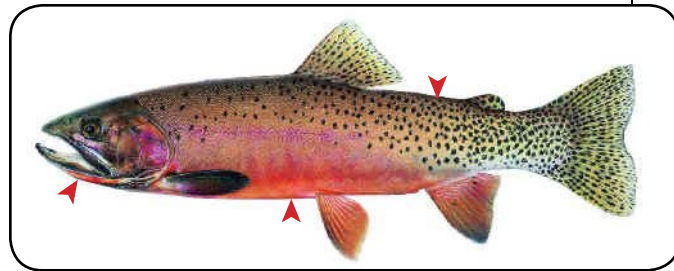


Illustration: Joseph Tomelleri

BEC ZONES

BWBS, ESSF, ICH, IDF, MS, SBS

ELEVATION

450–2,300 m

IMPORTANT HABITAT FEATURES

- Spawning: Low-gradient stream reaches that have gravel substrate ranging from 2 to 75mm in diameter (low sediment loads), water depths near 0.2–0.40m, and low mean water velocities from 0.25 to 1.05m/s.
- Spawning stream temperatures: 7–10°C.
- Feeding and rearing habitat are characterized by availability of cover (deep pools, undercut banks, LOD) in conjunction with riffles and pools.
- Low tolerance for warm water (>20°C).
- Deep pools (>2m) are used for overwintering.
- Structural stage: 5–7 (for large woody debris).

Shorthead Sculpin

Cottus confusus



DESCRIPTION

- Large head with large mouth and cone shaped body (Length: ~10 cm)
- Fan-shaped pectoral fins
- Colour is a dull, mottled, yellowish brown

FOREST DISTRICTS

Arrow Boundary, Columbia

BEC ZONES

ICH, IDF

ELEVATION

Not available

IMPORTANT HABITAT FEATURES

- Usually inhabits small rivers draining mountainous regions, which have a moderate to swift current and moderately cool water.
- Occurs in riffle habitats with stones or gravel for shelter and breeding
- Eggs are laid on the undersurface of rocks in rubble-boulder areas

CONSERVATION STATUS

- SARA Schedule:
1 - Threatened
- Identified Wildlife:
No
- Included in SFMP:
No
- Provincial List:
Blue



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Shorthead Sculpin



ADDITIONAL INFORMATION

Restricted to the Kettle River below Cascade Falls, the tributaries of the lower Columbia River, and portions of the Slocan River.

Habitat includes fast riffles of cold headwaters, creeks, and small to large rivers, also sometimes large rivers with slow-moving water (e.g., along shorelines, in backwaters). Usually this sculpin is found in streams or rivers with rubble or gravel bottoms.

Speckled Dace

Rhynchithys osculus



Photo: Brian Gratwicke

CONSERVATION STATUS

- SARA Schedule:
1 - Endangered
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red

DESCRIPTION

- Small, chunky, rounded minnow (Length: 4.5-8 cm)
- Overall colouration gray or gray-brown with scattered, faint darker flecks, usually above midline of sides
- Lower sides and belly somewhat yellowish or creamy white
- A faint lateral band

FOREST DISTRICTS

Arrow Boundary, Cascades

BEC ZONES

IDF, PP

ELEVATION

Found throughout most of the Kettle River below 884 m elevation in appropriate habitat



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Speckled Dace



IMPORTANT HABITAT FEATURES

- Found in riffle habitats where they take refuge under stones and feed on aquatic insects near the bottom
- Young tend to occupy edges of streams in slower, shallow water
- Larger adults generally prefer relatively quiet water where cover (e.g., overhanging trees, deadfalls, boulders) is available

ADDITIONAL INFORMATION

In British Columbia, speckled dace occur in the Kettle River south of Carmi as well as its tributaries (East Kettle, West Kettle, and Granby rivers).

Speckled dace breed in spring and fry appear along river edges where they scatter amongst the stones when approached.

White Sturgeon - Lower, Middle, & Upper Fraser River populations

Acipenser transmontanus pop. 4, 5, and 6



Adult White Sturgeon

Photo: Fraser River Sturgeon Conservation Society

DESCRIPTION

- The largest freshwater fish found in Canada. Some individuals exceed 6 m in length.
- Protective bony plates, or scutes, are arranged in five rows - one along the back, one along the middle of each side, and one along each side of the belly.
- Snout is sharp in young becoming blunt as they mature.
- Mouth is small and directed downward with thick lips but no teeth.
- Colour dark grey back with a white belly.
- Tail has a shark-like upper lobe, which is longer and more pointed than the lower lobe.

ELEVATION

Not available

CONSERVATION STATUS

- SARA Schedule: **1 - Endangered** (Upper Fraser R. population)
- Identified Wildlife: **No**
- Included in SFMP: **No**
- Provincial List: **Red**

BEC ZONES

Lower Fraser River population
CDF, CWH, IDF

Middle Fraser River population
BG, IDF, PP, SBS

Upper Fraser River Population
ICH, SBS



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White Sturgeon - Lower, Middle, & Upper Fraser River populations



Juvenile White Sturgeon

Photo: Fraser River Sturgeon Conservation Society

FOREST DISTRICTS

Lower Fraser River population
Cascades, Chilliwack

Middle Fraser River population
100 Mile House, Cascades,
Central Cariboo, Chilliwack,
Kamloops, Prince George, Quesnel

Upper Fraser River Population
Headwaters, Prince George

IMPORTANT HABITAT FEATURES

- Habitat use varies with life-history stage and season, and may involve migrations to spawning and feeding areas.
- Deep low velocity areas adjacent to faster water (including the confluence areas of large tributaries) are likely extremely important.
- Fraser River adults are typically found in deep near-shore areas, adjacent to heavy flows, defined by deposits of sand and fine gravels with backwater and eddy flow characteristics.
- In the lower section of the Fraser River, evidence of spawning has been found in side channels

with substrates of gravel, cobble and sand. In the mainstem site, boulder and cobble predominated.

- Flows at apparent spawning sites are mainly non-turbulent with near-bed velocities averaging 1.7 m/s.
- Juveniles (<1m in length) are often found in the lower reaches of tributaries, large backwaters, side channels and sloughs.

ADDITIONAL INFORMATION

- Lower Fraser River population is found below Hell's Gate to the mouth of the Fraser River.
- Middle Fraser River population is found from the Nechako confluence to Hell's Gate. While morphologically very similar, 70 km of broad shallow river separates the middle Fraser group from the upper Fraser group.
- Upper Fraser River population is found from the confluence of the Nechako river at Prince George upstream to the confluence of the Torpy River, north of McBride.

Dun Skipper

Euphyes vestris



Male Dun Skipper
Photo: Jeffrey Pippen

CONSERVATION STATUS

- SARA Schedule: 1 - Threatened
- Identified Wildlife: No
- Included in SFMP: Yes
- Provincial List: Red

DESCRIPTION

- Dark purplish or brown butterfly (Wingspan: 23 to 27 mm) with a fast erratic flight.
- Males are almost always totally unmarked.
- Females have a series of small white spots on the forewing above, which are repeated but are smaller on the forewing underside.
- The larva is pale green with many fine, wavy pale lines.

FOREST DISTRICTS

Campbell River, **Cascades**, Chilliwack, South Island, Squamish, Sunshine Coast

BEC ZONES

CDF, CMA, CWH, ESSF, IDF, IMA, MH, PP

ELEVATION

Not available



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Dun Skipper

SPECIES PHENOLOGY

Flight Season

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

IMPORTANT HABITAT FEATURES

- Wet areas near deciduous woods such as meadows, seeps, swamp edges, and streams
- Larval foodplants are usually reported to be sedges (*Carex heliophila*) in the west.

ADDITIONAL INFORMATION

In British Columbia, the Dun Skipper occurs on Vancouver Island from Courtenay south to Thetis Lake Park, but is absent from the Saanich Peninsula. It is also known from one locality north of Vancouver on the coast at Powell River, one locality near Pemberton, Mission, and five localities in the Fraser River Canyon: Hope, Boston Bar, Lytton, North Lytton, and Lillooet.



Female Dun Skipper
Photo: Tom Murray



Half-moon Hairstreak

Satyrion semiluna



Photo: J. Hobbs

CONSERVATION STATUS

- SARA Schedule:
1 - Endangered
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red

DESCRIPTION

- Small, inconspicuous little brownish-grey butterfly.
- Predominantly brown or blackish brown on the dorsal wing surfaces with varying quantities of black spots slightly edged with white scaling.
- Colour depends on sex, subspecies, and amount of flight wear.
- Unlike many other species of hairstreaks, there are no tails on the hindwings.

FOREST DISTRICTS

Cascades, Okanagan Shuswap

BEC ZONES

BG, ESSF, IDF, IMA, MS, PP

ELEVATION

600 to 1,100 m in British Columbia.



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Half-moon Hairstreak

SPECIES PHENOLOGY

Flight Season

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

IMPORTANT HABITAT FEATURES

It appears that the presence of sagebrush is an important habitat component in British Columbia. In 2003, the British Columbia population was found only in sagebrush/bluebunch wheatgrass habitat with silky lupine (*Lupinus sericeus*) present. All sites where the butterflies were present also had flowering plants of common yarrow (*Achillea millefolium*) and umbrella-plant (*Eriogonum heracleoides*). However, the minimum amount of lupine needed as a habitat component is unknown. The butterflies were found in areas that had reduced relief in comparison to surrounding steeper areas. No Half-moon Hairstreaks were seen at any British Columbia site with extreme livestock grazing.



Photo: W. Bouton



Monarch

Danaus plexippus



Photo: Fred Goodwin

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Blue

DESCRIPTION

- Large orange butterfly (wingspan: 93-105 mm).
- Bright orange wings with a thick black border containing two rows of white spots.
- Larval stage is brightly coloured with yellow black and white stripes (Length: 50 mm when fully grown).

FOREST DISTRICTS

Arrow Boundary, Cascades, Chilliwack, Columbia, **Kamloops**, Kootenay Lake, **Okanagan Shuswap**, Rocky Mountain, South Island, Sunshine Coast

BEC ZONES

BG, CDF, CWH, ESSF, ICH, IDF, MS, PP

ELEVATION

Not available



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Monarch

SPECIES PHENOLOGY

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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IMPORTANT HABITAT FEATURES

- Breeding habitat: patches of milkweed plants.
- Adults will feed on the nectar of almost any plant, but larval stages require milkweed.

ADDITIONAL INFORMATION

Western monarchs only reach British Columbia in summers with extended periods of warm, sunny weather in the Pacific Northwest. During these years, breeding occurs in scattered locations across the province, particularly in the Okanagan Valley and along the Fraser River.



Monarch on Milkweed
Photo: Geoff Dennis



Larva stage
Photo: Fred Goodwin



Sonora Skipper

Polites sonora



Photo: Tom Murray

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Red

DESCRIPTION

- A small orange (male) or orange-brown (female) skipper (Wingspan: 25–30 mm).
- Distinctive “crisp” crescent-shaped band of pale spots on the underside of the hind wing.
- Upper side of wing is reddish-orange with a light brown border.

FOREST DISTRICTS

Cascades, Chilliwack, **Okanagan Shuswap** (Penticton)

BEC ZONES

BGxh1
ESSF
IDFdk1, IDFdk2, IDFxh1
IMA
MS
PPxh1

ELEVATION

1,160–1,675 m



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Sonora Skipper

SPECIES PHENOLOGY

Flight Season											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

IMPORTANT HABITAT FEATURES

- Habitat includes grassy roadside areas, mesic grassy forest openings, moist meadows, and moist grassy logged areas.
- Structural stage:
2 (herb)

ADDITIONAL INFORMATION

This species is only confirmed from three locations in British Columbia: Crater Mountain, Manning Provincial Park, and Hope Mountain. This species may also occur near Merritt.



Fringed Myotis

Myotis thysanodes



DESCRIPTION

- Total length: 8-10 cm, wingspan: 28 cm.
- Fur on back is a tan brown making it lighter coloured than many other bat species in British Columbia.
- Fringe of stiff hairs on the outer edge of the tail membrane can be seen with the unaided eye (distinguishing feature of this species).
- Relatively large ears.

CONSERVATION STATUS

- SARA Schedule: **3 - Special Concern**
- Identified Wildlife: **Yes**
- Included in SFMP: **Yes**
- Provincial List: **Blue**

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Kamloops, Kootenay Lake, Okanagan Shuswap



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Fringed Myotis

SPECIES PHENOLOGY

Hibernation						Hibernation					
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEC ZONES

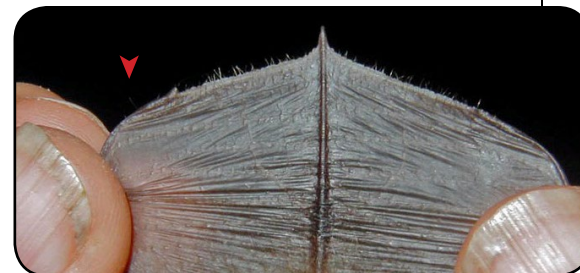
BGxh1, BGxh2, BGxh3, BGxw, BGxw1, BGxw2
 ICHdw(?), ICHdw(?), ICHmw2(?), ICHxw(?)
 IDFdK1(?), IDFdK2(?), IDFdK3(?), IDFdK4(?), IDFdm1(?), IDFmw2 (?), IDFxh1,
 IDFxh1a, IDFxh1b, IDFxh2, IDFxh2a, IDFxh2b, IDFxh, IDFxw
 PPdh1, PPdh2, PPxh1, PPxh2

ELEVATION

300-854 m

IMPORTANT HABITAT FEATURES

- Closely associated with arid grassland and ponderosa pine-Douglas-fir forest in British Columbia.
- Forages over watercourses and close to the vegetative canopy.
- Caves, rock crevices, trees, mine tunnels, and buildings used for day, night, and maternity roosts.
- Roosting: Wildlife tree classification 4.



Fringe of hairs on tail membrane



Little Brown Myotis

Myotis lucifugus



Photo: Jared Hobbs

CONSERVATION STATUS

- SARA Schedule:
1 - Endangered
- Identified Wildlife:
No
- Included in SFMP:
No
- Provincial List:
Yellow

DESCRIPTION

- Cinnamon-buff to dark brown above, buffy to pale gray below
- Hairs on back have long glossy tips
- Ear when laid forward reaches approximately the nostril

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson, Fort St. James, Haida Gwaii, **Headwaters**, Kalum, **Kamloops**, Kootenay Lake, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar, South Island, Squamish, Sunshine Coast, Vanderhoof



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Little Brown Myotis

SPECIES PHENOLOGY

Hibernation								Hibernation			
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEC ZONES

BG, BWBS, CDF, CWH, ESSF, ICH, IDF, MH, MS, PP, SBPS, SBS, SWB

ELEVATION

Sea-level to 2,300 m

IMPORTANT HABITAT FEATURES

- Use a wide range of habitats and often use human-made structures for resting and maternity sites; they also use caves and hollow trees.
- Foraging habitat requirements are generalized; foraging occurs over water, along the margins of lakes and streams, or in woodlands near water.
- Winter hibernation sites (caves, tunnels, abandoned mines, and similar sites) generally have a relatively stable temperature of 2–12°C.

ADDITIONAL INFORMATION

Maternity colonies commonly are located in warm sites in buildings (e.g., attics) and other structures; also infrequently in hollow trees.



Photo: Jared Hobbs



Northern Myotis

Myotis septentrionalis



Photo: Tim Carter

CONSERVATION STATUS

- SARA Schedule:
1 - Endangered
- Identified Wildlife:
No
- Included in SFMP:
No
- Provincial List:
Blue

DESCRIPTION

- Medium sized bat (Length: 8 cm, Wingspan: 23–26 cm).
- Best recognized by its long rounded ears, which extend beyond the tip of the nose when laid forward.
- Fur is yellow/brown
- Often seen shortly after sunset hunting insects over small ponds, forest clearings and forest edges at a height of 1–3 m.
- Unlike other bat species, the Northern Myotis is generally more solitary and is most often found singly or in very small groups.

FOREST DISTRICTS

Arrow Boundary, Cascades, Central Cariboo, Columbia, Fort Nelson, **Headwaters**, Mackenzie, **Okanagan Shuswap**, Peace, Prince George, Rocky Mountain



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Northern Myotis

SPECIES PHENOLOGY

Hibernation												Hibernation	
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		

BEC ZONES

BWBS, ICH, MH, SBS

ELEVATION

Not available

IMPORTANT HABITAT FEATURES

- In British Columbia they are found in the wet forests of the interior cedar-hemlock biogeoclimatic zone.
- Winter hibernation: caves, rock crevices and underground mines.
- Daytime roosts: typically found in crevices or hollows, under loose bark of trees or in cavities of partially decayed trees. Northern Myotis favour tall, wide-diameter, partially-dead trees with a high percentage of the bark remaining intact.



Northern Myotis in daytime roost under bark
Photo: Tim Carter



Pallid Bat

Antrozous pallidus



CONSERVATION STATUS

- SARA Schedule:
1 - Threatened
- Identified Wildlife:
No
- Included in SFMP:
No
- Provincial List:
Red

DESCRIPTION

- Large, pale bat (Length: 9-14 cm, wingspan: 33-38 cm)
- Fur is creamy beige on back and nearly white on belly
- Large eyes and ears
- Flight: Wing beats are much slower than other bats (only 10-11 beats per second).
- Sometimes found hunting insects on the ground
- Large size and pale fur distinguishes this bat from other bat species in British Columbia (all other big eared bats are considerably darker)

FOREST DISTRICTS

Okanagan Shuswap



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Pallid Bat

SPECIES PHENOLOGY

Hibernation						Hibernation					
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEC ZONES

BG, PP

ELEVATION

Pallid bats have been found at elevations up to 2,440 m in other areas of its range, but have only been found

IMPORTANT HABITAT FEATURES

- In BC, foraging is conducted in open, flat sparsely vegetated areas, most often dominated by antelope brush, big sagebrush, or ponderosa pine.
- Roosting typically occurs in crevices on cliffs but solitary roosting individuals can also be found in rubble.

ADDITIONAL INFORMATION

The Southern Okanagan Basin Ecoregion and possibly the Similkameen Valley and Thompson River Valley, have appropriate Pallid Bat habitat (consisting of high cliffs and a hot arid climate).



Spotted Bat

Euderma maculatum



Photo: Jared Hobbs

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Blue

DESCRIPTION

- Relatively large bat (Wingspan: 35 cm) with very distinctive markings.
- Three white spots on its black back: one on each shoulder and one on the rump (distinguishing features).
- Very large, pink ears

FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Chilcotin, Kamloops, Okanagan Shuswap

BEC ZONES

BGxh1, BGxh2, BGxh3, BGxw2, BGxw3
IDFdk(?), IDFdm(?), IDFmw(?), IDFxh1a, IDFxh1b, IDFxh2a, IDFxh2b, IDFxw
PPxh1, PPxh1a, PPxh2, PPxh2a

ELEVATION

In British Columbia, Spotted Bats are found at elevations between 300–900 m, although most occurrences are below 500 m.



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Spotted Bat

SPECIES PHENOLOGY

Hibernation?							Hibernation?					
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	

IMPORTANT HABITAT FEATURES

- Foraging and day roost habitat: riparian areas, marshes, fields, grasslands, and open forest.
- Closely associated with rugged arid habitats.
- Structural stage: No known preferences. This species roosts in large cliffs and often forages well above the canopy.

ADDITIONAL INFORMATION

Spotted Bats are restricted to dry interior valleys in British Columbia, which represent the northern extent of its global range. They occur from the southern Okanagan Valley north to Williams Lake and west to Lillooet.



Photo: Jared Hobbs



American Badger

Taxidea taxus



CONSERVATION STATUS

- SARA Schedule: **1 - Endangered**
- Identified Wildlife: **Yes**
- Included in SFMP: **Yes**
- Provincial List: **Red**

DESCRIPTION

- Heavy-bodied, short-legged with long front claws and a short bushy tail.
- Head and body length: 46-56 cm, weight: 6-12 kg.
- Upper parts are yellowish gray to light brown with a white stripe extending from the snout to the neck or shoulders.
- Black patches on the face and cheeks.

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Headwaters, Kamloops, Kootenay Lake, Okanagan Shuswap, Quesnel, Rocky Mountain

ELEVATION

Minimum elevation: 300–800 m (depending on the region). Maximum elevation: 2800 m.

BEC ZONES

BGxh1, BGxh2, BGxh3, BGxw, BGxw1, BGxw2
ESSFdc1, ESSFdc2, ESSFdcp, ESSFdk, ESSFdkp, ESSFmw, ESSFmwp, ESSFwc1, ESSFwc4, ESSFwcp, ESSFwm, ESSFwmp, ESSFxc, ESSFxcpx
ICHdw, ICHmk1, ICHmk2, ICHmk3, ICHmw1, ICHmw2, ICHmw3, ICHxw
IDFdk1, IDFdk2, IDFdk3, IDFdm1, IDFdm2, IDFmw, IDFmw1, IDFmw2, IDFun, IDFxh1, IDFxh2, IDFxw, IDFxw2
IMA
MSdk, MSdm1, MSdm2, MSun, MSxk
PPdh1, PPdh2, PPxh1, PPxh2
SBPS



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American Badger

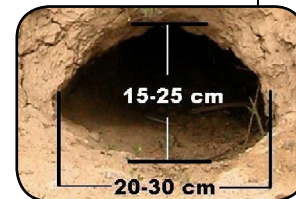
SPECIES PHENOLOGY

Young											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec



SIGN

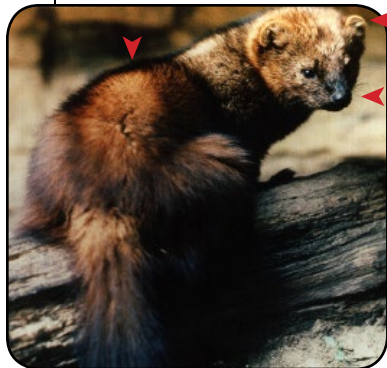
- Mound of dirt at the entrance to a large elliptical hole about 20–30 cm wide and 15–25 cm high.
- Claw marks may be seen along sides and top, 3–5 cm apart.



IMPORTANT HABITAT FEATURES

- Inhabits flat to steep terrain from valley bottom to alpine.
- Silty, loamy, clayey and sandy soils are key.
- Occurs in a variety of habitats - grasslands and dry open forests are most common. Also occur in the alpine and logged or burned forests, often at disturbed areas such as landings.



Pekania pennanti

CONSERVATION STATUS

- SARA Schedule: **No**
- Identified Wildlife: **Yes**
- Included in SFMP: **Yes**
- Provincial List: **Blue**

DESCRIPTION

- Member of the weasel family.
- Pointed face, rounded ears, and short legs.
- Fur is dense, long, chocolate-brown, with considerable grizzling patterns around the shoulders and back.
- Length: 79–100 cm (tail accounts for 1/3 body length).
- Weight: 2.6 kg (female)—4.8 kg (male).

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades,** Central Cariboo, Chilcotin, Columbia, Fort Nelson, Fort St. James, **Headwaters,** Kalum, **Kamloops,** Kootenay Lake, Mackenzie, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap,** Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar, Squamish, Sunshine Coast, Vanderhoof

ELEVATION

Low to mid-elevations up to 2,500 m (most are found below 1,000 m)



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SPECIES PHENOLOGY

Young

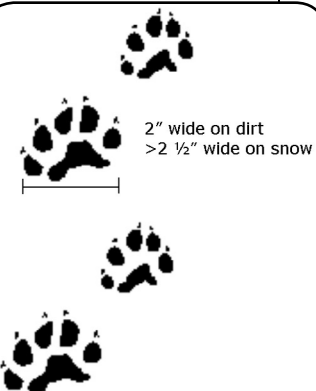
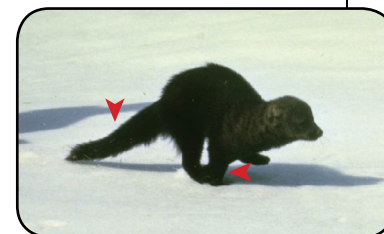
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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BEC ZONES

BAFA, BWBS, CDF, CMA
CWHds1/05, CWHds2/05
ESSF, ICH
IDFdK3, IDFdK4, IDFdm1, IDFdm2,
IDFdW, IDFmW1, IDFmW2, IDFww,
IDFww2, IDFxm
IMA, MH, MS,
PP, SBPS, SBS, SWB

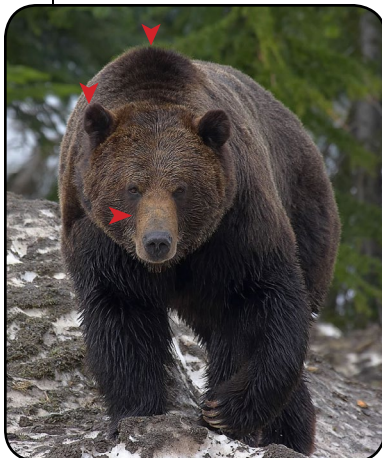
IMPORTANT HABITAT FEATURES

- Preferred habitat resembles that found in SBS, SWB, and BWBS biogeoclimatic zones and more specifically riparian and dense wetland forest habitats within those zones, particularly those with large spruce trees (minimum 25 cm dbh; recommended 40 cm dbh) with broom rust.
- Large (75 cm dbh) cottonwood or fir trees are used as resting and maternal denning sites.
- 30% canopy closure with a productive understorey that supports a variety of small and medium-sized prey species.
- Coarse woody debris (decay class 2-6) is important for resting sites and as habitat for prey species.
- Structural stage: 6-7 (mature and old forest): for most habitat use including resting and denning.



Grizzly Bear

Ursus arctos



CONSERVATION STATUS

- SARA Schedule: **No**
- Identified Wildlife: **Yes**
- Included in SFMP: **Yes**
- Provincial List: **Blue**

DESCRIPTION

- Large, heavy-bodied bears that can attain weights of up to 500 kg (average range: 270–360 kg).
- Small rounded ears.
- Grizzly Bear facial profile dished, and a hump of muscle is normally present on the shoulders (Black Bears lack these characteristics).
- Coat colour is variable. Usually brown but ranging from black to almost white. NOTE: Coat colour is not a good characteristic for distinguishing between Grizzly Bears and Black Bears.
- Tracks: When a straight line is drawn from the base of the big toe, across the front edge of the pad the little toe will be bisected by the line. A black bear track will show the little toe behind this line.

ELEVATION

All elevations from sea level estuaries to high alpine meadows and talus slopes.



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Grizzly Bear

SPECIES PHENOLOGY

Young			Hibernation			Hibernation			Hibernation		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEC ZONES

BAFA, BWBS, CMA, CWH, ESSF, ICH, IDF, IMA, MH, MS, SBPS, SBS, SWB

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades**, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson, Fort St. James, **Headwaters**, Kalum, **Kamloops**, Kootenay Lake, Mackenzie, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap**, Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar, Squamish, Sunshine Coast, Vanderhoof

IMPORTANT HABITAT FEATURES

- Avalanche tracks are a critical habitat component that provide spring foraging opportunities on emerging vegetation and roots.
- Dens are usually on steep north-facing slopes, with soils suitable for digging and where vegetation will stabilize the roof of the den and snow will accumulate for insulation.

Black Bear



Grizzly Bear



Wolverine, *luscus* subspecies

Gulo gulo luscus

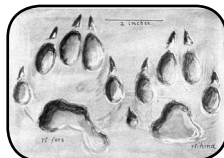


CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Blue

DESCRIPTION

- Bulky and somewhat bear-like with stout bodies and moderately bushy tails
- Males range from 12–18 kg and females range from 8–12 kg. Length: 65–105 cm.
- Most easily identified by their dark chocolate brown fur over most of the body with lighter coloured hair around the forehead and a long a lateral stripe extending from the ears or shoulder to the rump.
- Light patches of fur in front of ears
- Tracks: If perfect, all five toes and claws print but small toe often does not print (Track length: 11.5–18 cm).



Wolverine tracks

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Campbell River, **Cascades,** Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort Nelson, Fort St. James, **Headwaters,** Kalum, **Kamloops,** Kootenay Lake, Mackenzie, Nadina, North Coast, North Island - Central Coast, **Okanagan Shuswap,** Peace, Prince George, Quesnel, Rocky Mountain, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar, Squamish, Sunshine Coast, Vanderhoof



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Wolverine, *luscus* subspecies

SPECIES PHENOLOGY

Young

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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IMPORTANT HABITAT FEATURES

- Wolverines do not have easily defined habitats or small-scale habitat features for which they select. Instead they require a suite of habitat variables that occur at large spatial scales (e.g., landscapes, regions).
- Wolverines use a wide assortment of structural stages in their day-to-day life, although mature and old forest structural stages (6 and 7) are used predominately. One study noted relatively little use of mid-successional stands (stages 3 and 4).
- In mountainous areas of British Columbia, females tend to use ESSF Biogeoclimatic zones during winter and AT zones during the summer. Males tend to use lower elevation zones during winter and switch to ESSF zones during the summer.
- Denning: Natal and maternal dens are often associated with early-successional (stages 1 and 2) small-scale forest stand openings (e.g., < 100 m across) at high-elevations (i.e., ESSF/ESSFp ecotone). Dens are typically comprised of snow tunnels leading to masses of fallen trees (accumulations of classes 1–3 coarse woody debris) or rocky colluvium.

BEC ZONES

BAFA, BWBS, CMA, CWH (except CWHwh), ESSF, ICH, IDF (except: IDFxh, IDFxM, IDFxw and all grassland phases of IDF), IMA, MH, MS, SBPS, SBS, SWB

ELEVATION

From valley bottoms to alpine meadows.

ADDITIONAL INFORMATION

Wolverines are widely distributed, albeit at low densities, throughout much of British Columbia. Wolverine populations do not occur on Haida Gwaii and may be extirpated from Vancouver Island, the lower Fraser Valley, the Okanagan Basin, and the Thompson Basin.



Mountain Beaver

Aplodontia rufa



Photo: Dale Steele

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Yellow

DESCRIPTION

- Large rodent approximately the size of a muskrat but with a short furry tail (Length: 30–47 cm)
- Dark brown back with a light brown belly
- Relatively large head with a short, heavy body
- Cheeks have long silver whiskers
- Small rounded ears and small eyes
- Often balance on their hind feet while feeding
- Nocturnal, inhabiting dense, moist forest environments

FOREST DISTRICTS

Cascades, Chilliwack, **Okanagan Shuswap**

BEC ZONES

CDF
CWHxm1, CWHdm, CWHvm2
ESSFdc2, ESSFmw
MHmm2
MSdm2

ELEVATION

1,200–1,600 m



Photo: Dale Steele



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Mountain Beaver

SPECIES PHENOLOGY

Young											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BURROWS

- May show signs of excavated dirt and rocks. Look for them in wet meadows, the fringe of wooded areas, Douglas-fir and Western Hemlock forests, and clear cuts.
- Entrances to mountain beaver burrows are also often littered with clipped vegetation.
- Look for the clustering of several entrances. A burrow system may have as many as 10–30 entrances.
- A Mountain Beaver burrow is easily distinguished from that of a mole by: 1) size—a Mountain Beaver's entrance is much larger than a mole's—and 2) a mole's entrance is always plugged with dirt, whereas a mountain beaver's entrance is not.



Mountain Beaver burrows

Photo: Dennis Deck

IMPORTANT HABITAT FEATURES

- In the Southern Interior, habitat is described as wet soils with water within 1 m of the surface. They are typically found in draws and moist areas on north to east slopes, although south-facing slopes may also be inhabited provided that the habitat is sufficiently moist.
- Preferred habitats in forested sites are often dominated by red alder with an understory of sword fern (*Polystichum munitum*), a preferred food of mountain beavers. Stands of bracken fern (*Pteridium aquilinum*) are also favored by mountain beavers.
- Preferred shrub habitats include salmonberry (*Rubus spectabilis*), huckleberry (*Vaccinium parvifolium*), salal (*Gaultheria shallon*), and Oregon grape (*Berberis nervosa*). Small trees often found cut by mountain beavers include vine maple (*Acer circinatum*) and cascara (*Rhamnus purshiana*).
- Structural Stage: All structural stages. However, in forested areas mountain beaver are usually associated with clearings (e.g., openings associated with overstorey mortality, stream courses and springs within stands) or with the more open forest types typical of hygric or subhygric sites.



Western Harvest Mouse

Reithrodontomys megalotis



Photo: Bob Gress

DESCRIPTION

- A slim, nocturnal long-tailed mouse that is sometimes mistaken for the introduced house mouse (the Western Harvest Mouse is more buffy with a furry tail).
- Length: 133 mm (including tail); Tail length: 68 mm
- Back is grey brown containing a dark central stripe from the forehead to the tail.
- The cheeks and sides are buffy brown; the feet and underparts are greyish white and the tail is bicoloured.

ELEVATION

300–780 m with most occurrences below 600 m.

FOREST DISTRICTS

Okanagan Shuswap

CONSERVATION STATUS

- SARA Schedule: **1 - Special Concern**
- Identified Wildlife: **No**
- Included in SFMP: **No**
- Provincial List: **Blue**



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Western Harvest Mouse

SPECIES PHENOLOGY

Young											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEC ZONES

BG, IDF, PP

IMPORTANT HABITAT FEATURES

- Rangeland, old fields, grassy edge habitats, and especially dry gulleys with abundant and dense shrub cover that border grasslands.
- Prefers a high grass cover and a shrub understorey in these habitats. Typical shrub species include: wild rose (*Rosa spp.*), mock orange (*Philadelphica lewisii*), Saskatoon berry (*Amelanchier alnifolia*), chokecherry (*Prunus virginiana*), squaw currant (*Ribes cereum*), Douglas maple Trends (*Acer glabrum*), snowberry (*Symphoricarpus albus*), and black hawthorn (*Crataegus douglasii*).
- Most often occurs in the very dry hot subzone of the Bunchgrass biogeoclimatic zone (BGxh).

ADDITIONAL INFORMATION

The range of this species extends throughout most of the Okanagan Valley as far north as Vernon, and throughout the Similkameen Valley north to Keremeos. However, it is absent from adjacent arid valleys, such as the Thompson River and Kettle River valleys.



Photo: Barbra L. Clauson



Bighorn Sheep

Ovis canadensis



DESCRIPTION

- Brown to grayish brown ungulate with white rump patch and white muzzle
- Muscular body with thick neck
- Coats shed in patches in June–July
- Male (Weight 119–125 kg; Length 160–180 cm): Rams have massive curled horns, which can curl completely around.
- Females (Weight: 45–65 kg; Length: 150 cm): Horns never form more than half a curl.
- Two subspecies: California Bighorn sheep and Rocky Mountain Bighorn Sheep (which is slightly larger with a continuous black or brown stripe dividing the white rump patch to the tip of the tail).

CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: Yes
- Provincial List: Blue

ELEVATION

Generally 300–3,000 m (but also can be found as low as 175 m at Spences Bridge where they were introduced).



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Bighorn Sheep

SPECIES PHENOLOGY

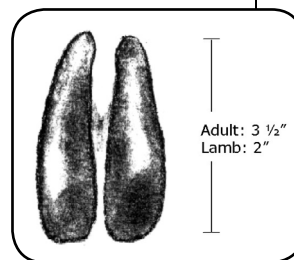
Young											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Columbia, Headwaters, Kamloops, Kootenay Lake, Okanagan Shuswap, Peace, Prince George, Rocky Mountain

BEC ZONES

BAFA
BGxh1, BGxh2, BGxh3, Bgwx1, BGxw2
ESSFdk, ESSFdkp, ESSFdv, ESSFdv, ESSFmm2,
ESSFmv2, ESSFwc1, ESSFwc3, ESSFwc4,
ESSFwm, ESSFxc, ESSFxc, ESSFxc,
ICHdw, ICHmk1, ICHmw2
IDFdk1, IDFdk2, IDFdk3, IDFdk4, IDFdm1,
IDFdm2, IDFmw2, IDFun, IDFxh1, IDFxh2,
IDFxm, IDFxw
IMA
MSdc1, MSdc2, MSdk, MSdm1, MSdm2,
MSxk, MSxv
PPdh1, PPdh2, PPxh1, PPxh2



Bighorn sheep track



Female Bighorn sheep
Photo: Chris Gill

IMPORTANT HABITAT FEATURES

- Habitat use varies daily and seasonally with changes in requirements for food, rest, safety, thermal cover, rutting, and lambing.
- Open grasslands, alpine, subalpine, shrub-steppe, rock outcrops, cliffs, meadows, moist draws, stream sides, talus slopes, plateaus, deciduous forest, clearcut or burned forest, and conifer forest
- Moderately steep to steep slopes
- Most populations winter on low-elevation, southerly exposed slopes close to rocky escarpments or scree slopes, and summer in high elevation alpine and subalpine areas.



Caribou – Southern Mountain population

Rangifer tarandus pop. 1



DESCRIPTION

- Large grayish-brown ungulate with whitish neck and mane
- Belly, rump, and underside of tail are white
- Large snout and short ears
- Males and females have antlers; male antlers are larger with one prominent brow tine over the nose.
- Hooves are large and rounded

CONSERVATION STATUS

- SARA Schedule:
1 - Threatened
- Identified Wildlife:
Yes
- Included in SFMP:
No
- Provincial List:
Red

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Central Cariboo, Columbia, **Headwaters**, Kootenay Lake, **Okanagan Shuswap**, Peace, Prince George, Quesnel, Rocky Mountain

BEC ZONES

BAFA
ESSFdk, ESSFmm, ESSFp, ESSFun, ESSFvc, ESSFv, ESSFwc, ESSFwk, ESSFwm
ICHmk (limited), ICHmm, ICHmw, ICHvk, ICHwk
IMA



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Caribou – Southern Mountain population

SPECIES PHENOLOGY

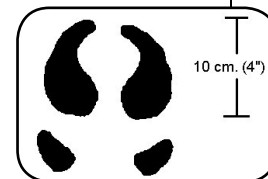
Young											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

ELEVATION

- Most concentrated in the upper portion of the ESSF zone, at 1500–2100 m.
- Mountain caribou “migrate” vertically from the valley floors in spring and fall to the high forests in winter and summer.
- Local populations occurring near the centre of current range and in areas with greater extremes of elevation tend to make more extensive use of elevations as low as 600m for foraging, particularly in early winter and spring.

IMPORTANT HABITAT FEATURES

- Mountain Caribou are characterized by their use of high-elevation habitat in late winter, where they rely almost exclusively on arboreal lichens for forage. Therefore, presence of an adequate supply of arboreal hair lichens (*Bryoria spp.* with some *Alectoria sarmentosa* and possibly *Nodobryoria oregana*) in winter (mid-January – April) is critical.



Caribou track

- Presence of mineral licks.
- Structural stages:

- 7 (for forage, predator avoidance, snow interception in early winter, and possibly heat avoidance in the summer).
- 6
- 1a and 1b (for calving sites when occurring in rough terrain (June), predator avoidance (good line of site), insect avoidance (spring and summer), and resting areas).

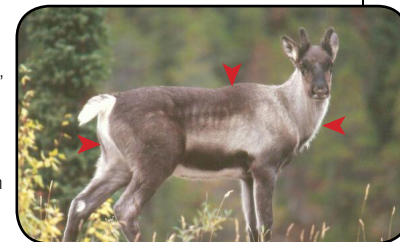


Photo: Gabor Halasz

- 2 and 3a (for moderate to high forage value in spring and summer).
- NOTE: The least valuable stands to caribou are those in stages 3b, 4, and 5, where line of site is poor for predator avoidance and forage value is generally low for caribou.





Juvenile Western Skink
Photo: Gavin Hanke

DESCRIPTION

- Medium-sized lizard (Length: <8cm) with a long tail (approximately 1.5-2 times their body length), smooth, shiny scales, a pointed head, and short legs.
- Four longitudinal, light-coloured stripes extend from the head to the base of the tail. The stripes contrast with the dark-coloured brown back and grey or black sides.
- Juveniles have a vivid blue tail (distinguishing characteristic), which fades as they mature.
- Reddish patches may be present on the chin and sides of the head of breeding adults of both sexes but is brighter in males.

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Blue

BEC ZONES

BG, ICH, IDF, PP

ELEVATION

0-1,080 m



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SPECIES PHENOLOGY

Hibernation							Hibernation				
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FOREST DISTRICTS

Arrow Boundary, Cascades, Kootenay Lake, Okanagan Shuswap

IMPORTANT HABITAT FEATURES

- Often found in relatively damp habitats including riverbanks, but they also occupy drier upland areas.
- Require an abundance of rocks or decaying wood for cover.
- In southern Okanagan, they inhabit sunny rock (primarily gneiss) outcrops and stable talus slopes, but they can also be found in lacustrine (lake-associated) escarpments and along creek banks.
- Prefer habitats with a southern aspect.

ADDITIONAL INFORMATION

In British Columbia this species is restricted to a small area between Kootenay Lake in the east and Princeton in the west, south of latitude 51° N. A concentration of distribution records exists from the Okanagan Valley, particularly from its southern portion. The species is not confined to the arid zones, however, and concentrations also occur in the moister Cedar-Hemlock zone west of the Kootenay Mountains.



Adult Western Skink
Photo: Chris Brown

Gopher Snake, *deserticola* subspecies

Pituophis catenifer deserticola



DESCRIPTION

- Adults are generally between 70–200 cm, but may exceed 240 cm.
- Head is slightly wider than the neck.
- Relatively large eyes with a round pupil.
- Very light brown or yellowish-brown with superimposed dark brown/black squares running from the head to the tail (on the tail the squares become more like stripes or cross-bands).
- Three distinctive markings (dark brown-black) occur on the head, including a horizontal band between the eyes, a vertical line running from below the eye to the upper jaw, and an angled stripe running from the eye to the angle of the jaw.

CONSERVATION STATUS

- SARA Schedule: **1 - Threatened**
- Identified Wildlife: **Yes**
- Included in SFMP: **Yes**
- Provincial List: **Blue**



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Gopher Snake, *deserticola* subspecies

SPECIES PHENOLOGY

Hibernation									Hibernation		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Chilliwack, **Kamloops, Okanagan Shuswap** (Salmon Arm)

BEC ZONES

BGxh, BGxw
IDFxh (including a and b phases),
IDFxm, IDFxw
PPdh1, PPdh2, PPxh1)

ELEVATION

250–1,100 m

IMPORTANT HABITAT FEATURES

- Foraging occurs in open grassland habitats but riparian areas within the grassland habitat may also be important.
- Den sites are located within rock outcrops or talus habitat on south-facing slopes in the Ponderosa Pine or Bunchgrass biogeoclimatic zones.
- Egg-laying sites also tend to be on south-facing slopes but are more likely to be found in abandoned rodent burrows than in talus or rock outcrops. These sites usually contain minimal vegetation and loose sandy soils.
- Structural stage: 1 (non-vegetated/sparse), 2 (herb), 3 (shrub/herb)



Photo: Chris Gill

North American Racer

Coluber constrictor



Photo: Gary Nafis

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Blue

DESCRIPTION

- Long, slender, streamlined snake with a long, flattened head
- Length is usually not more than 100 cm, but can attain lengths up to 190 cm.
- Back and sides are a slate-grey or olive green colour with a belly that is vivid to whitish yellow.
- Juveniles have a blotched pattern on their backs, which superficially resembles that of a young rattlesnake; however, this colouration disappears as they mature.

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Kamloops, Okanagan Shuswap, Squamish

BEC ZONES

BGxh, BGxw
IDFdm, IDFmw, IDFww, IDFxh, IDFxw, IDFxw
PPdh, PPxh



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North American Racer

SPECIES PHENOLOGY

Hibernation							Hibernation					
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	

ELEVATION

Up to 900 m in British Columbia

IMPORTANT HABITAT FEATURES

- Most common in non-forested ecosystems. Where they do occur in forested habitats, they seem to prefer openings in the ponderosa pine and bunchgrass biogeoclimatic zones.
- Dens are usually found on warm slopes in rock outcroppings or talus in grasslands or open forest habitats.
- In the south Okanagan, egg-laying sites have been found near the crest of a sandy hill, with minimal surrounding vegetation.
- Foraging habitat: most often shrub-steppe and grasslands although open forests and sandy terrace/riparian margins are also used.
- Structural stage does not appear to be important, providing the canopy is not closed.

ADDITIONAL INFORMATION

Restricted to the dry grasslands of the Okanagan, Thompson, Nicola, Similkameen and the middle Fraser drainages north to at least Churn Creek.



Photo: Gary Nafis

Northern Rubber Boa

Charina bottae



Photo: Jared Hobbs

DESCRIPTION

- Smooth, shiny, stout-bodied snake that looks and feels like rubber.
- Length: 35-83cm (adult).
- Back is plain brown to olive green, Belly is cream to yellow, sometimes with dark flecks or brown, orange, or black mottling.
- Blunt head with a vertical pupil.
- Short blunt tail gives it a two-headed appearance.

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Kamloops, Kootenay Lake, Okanagan Shuswap, Rocky Mountain, Squamish

ELEVATION

Occurs from sea level to 3,050 m

CONSERVATION STATUS

- SARA Schedule: **1 - Special Concern**
- Identified Wildlife: **No**
- Included in SFMP: **No**
- Provincial List: **Yellow**



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Northern Rubber Boa

SPECIES PHENOLOGY

Hibernation						Hibernation					
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEG ZONES

BGxh, BGxw
CWHxm, CWHdm, CWHmm, CWHwm, CWHvm, CWHds, CWHms, CWHws
ICHxw, ICHdw, ICHdk, ICHmk, ICHmw, ICHmm
IDFxh, IDFxw, IDFxsm, IDFmw
PPxh

IMPORTANT HABITAT FEATURES

- Burrows into rotting logs. Also found under rocks, logs or bark.
- Coarse woody debris between decay classes 6 and 9, and larger debris pieces (>10 cm diameter) are particularly important.
- Hibernation and Breeding: rock outcrops.
- Foraging: damp woodland and coniferous forest, large grassy areas, meadows, and moist sandy areas along streams.
- Structural stage: 1a to 7: non-vegetated to old forest.

ADDITIONAL INFORMATION

In British Columbia it is widely distributed in the southern part of the province but appears to be present in low densities.



Photo: Jared Hobbs



Western Rattlesnake

Crotalus oreganus



Photo: Chris Gill

CONSERVATION STATUS

- SARA Schedule:
1 - Threatened
- Identified Wildlife:
Yes
- Included in SFMP:
Yes
- Provincial List:
Blue

DESCRIPTION

- Moderate-sized snake that grows to a maximum length of 120 cm
- Broad triangular shaped head that is wider than the neck
- Rattle at end of tail produces a buzzing sound to warn off intruders
- Dark stripe below eye to the corner of the jaw
- Dark markings banded with light-coloured edges along center of back

FOREST DISTRICTS

Arrow Boundary, Cascades, Kamloops, Okanagan Shuswap

BEC ZONES

BG, IDF, PP

ELEVATION

Typically found along valley bottoms and adjacent slopes at elevations below 800 m, although there are anecdotal sightings (unconfirmed) of rattlesnakes as high as 1,400 m.



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Western Rattlesnake

SPECIES PHENOLOGY

Hibernation						Hibernation					
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

IMPORTANT HABITAT FEATURES

- Denning sites: most are inside discrete rock outcrops or in localized areas of large continuous rock faces on south, southeast, or southwest facing slopes (on the upper third of the slope) at elevations of 500 to 625m.
- Foraging: grassland, parkland forest, wetland, and riparian areas with coarse woody debris.
- Structural stage: no preferences are known for this species.

ADDITIONAL INFORMATION

- Restricted to the very dry British Columbia interior. It is known from the Similkameen, Okanagan, Kettle, Lower Nicola, South Thompson, and Fraser valleys.
- The Western Rattlesnake exhibits a high degree of colour and pattern variation within its range in British Columbia.



Photo: Jared Hobbs

Painted Turtle - Intermountain-Rocky Mountain population

Chrysemys picta pop. 2



DESCRIPTION

- A small freshwater turtle (Length: < 25 cm) with a low, smooth, dark shell and vivid red and yellow patterns on its limbs and breastplate.
- The only native freshwater turtle in British Columbia. Key features distinguishing it from non-native turtles:
 - Yellow stripes on head, neck, tail, and legs.
 - Irregularly shaped bright red and yellow markings on the underside of the shell.

CONSERVATION STATUS

- SARA Schedule: **1 - Special Concern**
- Identified Wildlife: **No**
- Included in SFMP: **Yes**
- Provincial List: **Blue**

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Central Cariboo, Columbia, **Headwaters**, Kamloops, Kootenay Lake, **Okanagan Shuswap**, Rocky Mountain



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Painted Turtle - Intermountain-Rocky Mountain population

SPECIES PHENOLOGY

Hibernation							Hibernation				
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

BEC ZONES

BG, CDF, CWH, ICH, IDF, MH, PP, SBS

ELEVATION

Found up to approximately 1,000 m

IMPORTANT HABITAT FEATURES

- Shallow waters of ponds, lakes, oxbows and marshes, in slow-moving stream reaches, or the quiet backwater sloughs of rivers.
- Ideal Painted Turtle habitat contains muddy substrates, ample emergent aquatic vegetation, exposed cattail mats, logs, and open banks.
- Nesting: usually warm, unvegetated south-facing sites with soils that are dry, light in texture and free of roots or large stones.
- Painted Turtle habitat ideally consists of a cluster of breeding and overwintering ponds, their riparian zones, and the habitat connecting them.



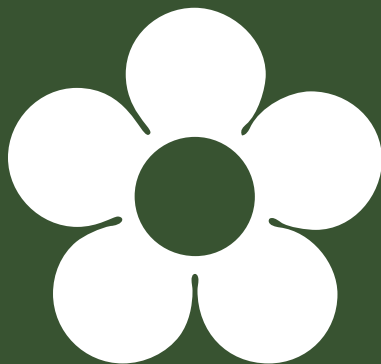
Photo: Karl Larsen

ADDITIONAL INFORMATION

In British Columbia, Painted Turtles are irregularly distributed but locally abundant in Southern Interior valleys, including the Rocky Mountain Trench north to Golden, the Creston and Nelson areas, the Okanagan Valley, and the Kamloops-Shuswap Lake area. There is also a population near Williams Lake.



Photo: Jared Hobbs



Plants and Plant Communities

RARE PLANTS

In British Columbia there are over 2,300 native vascular plant species, including more than 200 rare plant species listed by the British Columbia Conservation Data Centre (website: <http://www.env.gov.bc.ca/cdc>). This guide, however, focuses only on plants and plant communities that occur in forest and range habitats in the 100 Mile House, Arrow Boundary, Cascades, Headwaters, Kamloops, and/or Okanagan Shuswap forest districts AND are legally protected under the

- Federal Species at Risk Act (SARA)—Identified under Schedule 1 as Endangered, Threatened, or Special Concern;
- Forest and Range Practices Act (Section 7 Notices);
- Identified Wildlife Management Strategy (version 2004); and/or
- Nicola Thompson Fraser Sustainable Forest Management Plan (2017) and/or the Tolko/BCTS/WFN Okanagan Operations Sustainable Forest Management Plan (2016/2017).

Species that have a limited number of occurrences in these forest districts and/or do not occur in habitats that are likely to be impacted by forestry activities are not included in this guidebook. Several published plant guidebooks are available, such as *The Plants of Southern Interior British Columbia and the Inland Northwest* by Roberta Parish, Ray Coupe, and Dennis Lloyd (1996), that can be used to identify other rare plant species found in the forest districts of interest.

RARE PLANT COMMUNITIES

One of the most difficult challenges for users of this guidebook is the identification of rare plant communities due to the limited availability of known occurrence data from the BC Conservation Data Centre. Fortunately, most of these plant communities are found within Mature Forest and Old Forest structural stages in specific biogeoclimatic zones, which increases the probability of correctly identifying them (for example, the Douglas-fir / common snowberry - Saskatoon plant community is only found in PPxh2/06). Please refer to the BC Conservation Data Centre for additional information or consult with a Registered Professional Biologist for additional guidance.

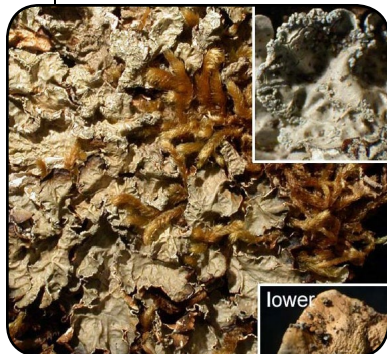


Photo: Bruce McCune

CONSERVATION STATUS

- SARA Schedule:
1 - Special Concern
- Identified Wildlife:
No
- Included in SFMP:
No
- Provincial List:
Blue

DESCRIPTION

- Rare lichen characterized by a yellowish, greenish, or bluish-grey upper surface with net-shaped ridges, and a hairless tan to sometimes blackish lower surface.
- 2–7 cm wide with rounded lobes 4–12 mm wide.
- Strongly associated with humid old growth cedar-hemlock forests.
- Colonizes a broad range of trees including (listed in decreasing order of importance): Subalpine fir, western hemlock, sitka spruce, amabilis fir, white spruce, mountain hemlock, and paper birch.
- Tends to grow on living branches, usually near the branch tips among live needles. Less common or absent over large branches or on the trunks of trees.

FOREST DISTRICTS

Campbell River, Columbia, **Headwaters**, Kalum, North Island - Central Coast District, Prince George, Skeena Stikine - Bulkley, Skeena Stikine - Cassiar



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BEC ZONES

CWH, ICH

ELEVATION

Below 1,200 m (most are found between 400–800 m).

IMPORTANT HABITAT FEATURES

- Moist old growth forested habitat below 1200 m in ICH and CWH BEC zones.
- Key tree species including (in descending order of importance): Subalpine fir, western hemlock, sitka spruce, amabilis fir, white spruce, mountain hemlock, and paper birch.
- Requires high humidity, stable environmental conditions and nutrient rich soil.



Photo: Stephen Sharnoff



Whitebark Pine

Pinus albicaulis



Photo: Richard Snieszko

DESCRIPTION

- Often contorted and dwarfed, 5–10 m tall, or a shrubby sprawling timberline tree. But also grows straight and up to 20 m.
- Bark is thin with light-whitish scales.
- Seed cones are egg-shaped, deep red to purple, 5–8 cm long. Scales remain closed and shed the seeds slowly, rarely falling from tree intact.
- When in flower the pollen cones are a striking red color.
- Needles occur in bunches of five, ranging from 3 to 9 cm long, slightly curved and stiff, usually bluish-green, and tend to be clumped towards the ends of branches.
- Can be confused with limber pine (*Pinus flexilis*) where the ranges of two species overlap in southeastern British Columbia. The presence of cones on the ground beneath a tree is often the clearest evidence of limber pine.

CONSERVATION STATUS

- SARA Schedule:
1 - Endangered
- Identified Wildlife:
No
- Included in SFMP:
No
- Provincial List:
Blue



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Whitebark Pine

ELEVATION

1,900–2,700 m

FOREST DISTRICTS

100 Mile House, Arrow Boundary, Cascades, Central Cariboo, Chilcotin, Chilliwack, Columbia, Fort St. James, **Headwaters,** Kalum, **Kamloops,** Kootenay Lake, Nadina, North Island - Central Coast, **Okanagan Shuswap,** Prince George, Rocky Mountain, Skeena Stikine, Squamish, Sunshine Coast

BEC ZONES

BAFAun, BAFAunp

CMAunp

CWHdm, CWHds, CWHms, CWHun, CWHvm, CWHws

ESSFdc, ESSFdcpc, ESSFdcw, ESSFdk, ESSFdkp, ESSFdku, ESSFdkw,

ESSFdm, ESSFdmcp, ESSFdmw, ESSFdv, ESSFdvp, ESSFdw, ESSFmc,

ESSFmcp, ESSFmk, ESSFmkp, ESSFmm,

ESSFmmp, ESSFmv, ESSFmvp, ESSFmw,

ESSFmwp, ESSFmww, ESSFvc, ESSFvcp,

ESSFvcw, ESSFwc, ESSFwcp, ESSFwcv,

ESSFwk, ESSFwm, ESSFwmp, ESSFwmu,

ESSFwmw, ESSFww, ESSFwvp, ESSFxc,

ESSFxcpc, ESSFxcw, ESSFvx, ESSFxvp,

ESSFxvw

ICHdm, ICHdw, ICHmc, ICHmk, ICHmm,

ICHmw, ICHvk, ICHwk

IDFdc, IDFdk, IDFdm, IDFdw, IDFww,

IDFxc, IDFxh

IMAun, IMAunp

MHdm, MHdmp

MSdc, MSdk, MSdm, MSdv, MSmw,

MSxk, MSxv

SBPSxc

SBSdh, SBSmc, SBSvk, SBSwk



Photo: Wikipedia

IMPORTANT HABITAT FEATURES

This species occurs at or close to the tree line on mesic to dry slopes, forming both open and closed forests, and often in association with Engelmann Spruce and Subalpine Fir. Most whitebark pine stands grow on weakly developed (immature) soils.



Alkali Saltgrass - Nuttall's Alkaligrass

Distichlis spicata var. *stricta* - *Puccinellia nuttalliana*



Photo: Jamie Fenneman

CONSERVATION STATUS

- SARA Schedule: No
- Identified Wildlife: Yes
- Included in SFMP: No
- Provincial List: Red

DESCRIPTION

- Saline, wetland meadow community dominated by alkali saltgrass.
- Saltgrass grows 10–40cm in height, has more or less erect leaves, and a small spiky-looking flower head, often with long 'hairs', which extends slightly above the many-stemmed leaves.
- Meadows occur in seasonally flooded areas often associated with saline/alkaline potholes and lakes.
- In the dry season look for meadows with a distinct salt crust around edges of potholes.

FOREST DISTRICTS

100-Mile House, Cascades, Central Cariboo, Chilcotin, **Kamloops,** North Island - Central Coast, Quesnel

BEC ZONES

IDFdk3, IDFx
SBPSxc



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Alkali Saltgrass - Nuttall's Alkaligrass

ELEVATION

580–1,125 m

IMPORTANT HABITAT FEATURES

- Occurs at lower elevations on all aspects, from mid to lower slopes, on gently sloping areas.
- Soils consist of fine-textured glaciolacustrine materials, which are typically wet in the early spring and dry out in the summer.
- Structural stage 2: herb



Photo: Clinton Shock

ADDITIONAL INFORMATION

Occupies low elevations only at the southern end of the Rocky Mountain Trench. Less than 20 known occurrences in British Columbia.



Alkali Saltgrass in dry saline meadow



Black Cottonwood - Water Birch

Populus balsamifera ssp. trichocarpa - *Betula occidentalis*

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red



Black cottonwood
Photo: H.W. Phillips



Water birch

No plant community photo available

DESCRIPTION

- Very dry hot plant community dominated by black cottonwood (*Populus balsamifera ssp. trichocarpa*) that occurs in valley bottoms on high bench floodplain deposits.
- Found only in the BGxh1/07 and PPxh2/07 zones.
- The shrub layer is characterized by water birch (*Betula occidentalis*) and Nootka rose (*Rosa nutkana*). Depending on the site, red-osier dogwood (*Cornus sericea*) or common snowberry (*Symphoricarpos albus*) can also be dominant in the shrub layer.
- The herb layer is variable, usually including star-flowered false Solomon's-seal (*Maianthemum stellatum*), and a variety of other herbs such as horsetail (*Equisetum hyemale*), common sweet-cicely (*Osmorhiza berteroi*), American vetch (*Vicia americana*), and *Viola* spp. Agronomic sup-species of Kentucky bluegrass (*Poa pratensis*) may become dominant with increased disturbances.
- NOTE: This is a rare plant community with limited distribution.

FOREST DISTRICTS

Cascades, Kamloops, Okanagan Shuswap

BEC ZONES

BGxh1/07 (not present in Kamloops TSO)
IDFxh1
PPxh1, PPxh1a, PPxh2/07



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Black Cottonwood - Water Birch

ELEVATION

Not available

IMPORTANT HABITAT FEATURES

- Soils are medium to coarse in texture with a seasonally high water table (occurring within 1 m of the soil surface).
- The moisture regime is subhygric to hygric and the nutrient regime is medium to very rich.
- Soils are generally Orthic or Gleyed Cumulic Regosols.
- Refer to the map for the location of the BEC zones where this plant community may be found.

ADDITIONAL INFORMATION

Very rare plant community with a restricted distribution within a very small range, which extends along the floodplains of the South Okanagan River from Summerland to the United States border and east along the Similkameen River to the Ashnola. Within the Ponderosa Pine subzone, its range extends along floodplains of the Fraser River from Lytton to north of Lillooet, along floodplains of the lower Yalakom River to Bridge River, and southeast along the Nicola River to Coutlee.



Douglas-fir / Common Snowberry - Saskatoon

Pseudotsuga menziesii/*Symphoricarpos albus* - *Amelanchier alnifolia*

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red



Common snowberry



Saskatoon
Photo: W.D. Bransford

No plant community photo available

DESCRIPTION

- Very dry hot forest community dominated by Douglas-fir stands.
- Found only in the PPxh2/06 zone.
- In relatively open, undisturbed stands, the shrub layer is generally poorly developed and has a low cover of common snowberry and Saskatoon.
- The herb layer is well developed.
- Common snowberry is an erect deciduous shrub 0.5-1.5 m tall, spreading by a few underground rhizomes. Fruits persist through winter and are conspicuous spongy white and berry-like.
- Saskatoon: a shrub or rarely a small tree, 1-6 m tall; stems slender, smooth; twigs smooth, reddish-brown; bark greyish to red-brown; sometimes spreading by rhizomes or stolons and forming dense colonies.
- NOTE: This is a rare plant community with limited distribution.

FOREST DISTRICTS

Cascades, Kamloops, Okanagan Shuswap

BEC ZONES

PPxh2/06



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Douglas-fir / Common Snowberry - Saskatoon

ELEVATION

Near Kamloops on north aspects, the lower elevation range for PPxh2 is 650-800 m and the upper elevation range is 900-950 m. On south aspects, the lower elevation range is also 650-800 m and the upper elevation range is 950-1,050 m.

IMPORTANT HABITAT FEATURES

Very little information is available for this plant community. Please refer to the map for the location of the BEC zone where this plant community may be found.

ADDITIONAL INFORMATION

This plant community is geographically very restricted. No known locations available from the Conservation Data Centre. Please refer to plant guidebooks such as *Plants of the Southern Interior British Columbia and the Inland Northwest* (Lone Pine Press, 463pp) for assistance with the identification of individual species comprising this community.



Douglas-fir - Ponderosa Pine / Bluebunch Wheatgrass

Pseudotsuga menziesii - *Pinus ponderosa*/*Pseudoroegneria spicata*

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red



Bluebunch wheatgrass

No plant community photo available

DESCRIPTION

- Very dry warm to hot forest community dominated by mature seral and climax stands of Douglas-fir/ponderosa pine
- Found only in the IDFxh1/02, IDFxh2/02, IDFxh2/03 and IDFxw/04 zones.
- Typically the herb layer is dominated by bluebunch wheatgrass. Associated herbaceous species include pinegrass, junegrass, pasture sage, yarrow and kinnikinnick.
- Very sparse moss and lichen layer.
- Occurs on subxeric to xeric, southerly and westerly aspects of colluvial and morainal landforms with poorly developed Regosolic soils.
- Bluebunch wheatgrass is a large perennial bunchgrass 60-100 cm tall with many stems. Often grows in large clumps.
- NOTE: This is a rare plant community with limited distribution.

FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Kamloops, Okanagan Shuswap

BEC ZONES

IDFxh1/02, IDFxh2/02, IDFxh2/03, IDFxw/04



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Douglas-fir - Ponderosa Pine / Bluebunch Wheatgrass

ELEVATION

- Generally above 760 m
- The IDFxh1 and xh2 zones begin at 400-900 m where they occupy valley bottoms. Where these zones occur above the PPxh1 and xh2 (respectively) they begin at about 900-1,000 m on north aspects and 950-1,100 m on south aspects. It extends upslope to about 1100-1,250 m on north slopes and 1,150-1,450 m on south slopes.

IMPORTANT HABITAT FEATURES

Very little information is available for this plant community. Please refer to the map for the location of the BEC zones where this plant community may be found.

ADDITIONAL INFORMATION

- The IDFxh1 variant occurs at low elevations along the Similkameen and lower Ashonola River drainages. North and west of Princeton it occurs in the lower reaches of the Tulameen, Hayes, Whipsaw, Allison, and Wolfe Creeks.
- The IDFxh2 variant occurs at lower elevations of the Nicola and lower Thompson watersheds. This area more-or-less corresponds to the South and North Thompson Uplands and Pavillion Ranges Ecoregions. It includes areas draining into the South Thompson River, downstream of the outlet of Adams and Shuswap Lakes. It also includes areas draining into the North Thompson River downstream of Little Fort. Additionally, it occurs west of Cache creek in the Hat Creek valley and Pavillion areas.
- The IDFxw subzone occupies lower elevations of major valleys in the Clinton-Cache Creek area and midslopes of the Fraser River valley west of Clinton.



Douglas-fir / Rocky Mountain Juniper / Kinnikinnick

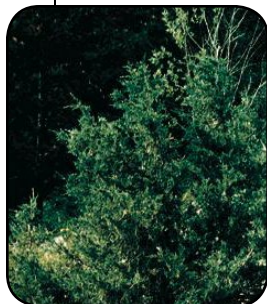
Pseudotsuga menziesii/*Juniperus scopulorum*/*Arctostaphylos uva-ursi*

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red



Kinnikinnick



Rocky Mountain Juniper

No plant community photo available

DESCRIPTION

- Dry cool plant community dominated by Douglas-fir stands occurring in the IDFd3/02 zone.
- The shrub layer is dominated by Rocky Mountain juniper. This is a shrubby tree with a wide, irregularly rounded crown and knotty, twisted trunk reaching up to 13 m in height.
- Sparse herb layer dominated by kinnikinnick (*Arctostaphylos uva-ursi*) which is a trailing evergreen shrub not over 20 cm in height with brownish-red bark and long flexible rooting branches. Kinnikinnick often forms large vegetation mats. Flowers are small, urn-shaped and pinkish white. Bright red berries like miniature apples with large very hard seeds.
- NOTE: This is a rare plant community with limited distribution.

FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Chilcotin, **Kamloops**, Quesnel

BEC ZONES

IDFd3/02

ELEVATION

Not available



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Douglas-fir / Rocky Mountain Juniper / Kinnikinnick

IMPORTANT HABITAT FEATURES

Very little information is available for this plant community. Please refer to the map for the location of the BEC zone where this plant community may be found.

ADDITIONAL INFORMATION

This plant community is geographically very restricted. No known locations available from the Conservation Data Centre. Please refer to plant guidebooks such as *Plants of the Southern Interior British Columbia and the Inland Northwest* (Lone Pine Press, 463pp) for assistance with the identification of individual species comprising this community.



Douglas-fir / Western Snowberry / Bluebunch Wheatgrass

Pseudotsuga menziesii / *Symphoricarpos occidentalis* / *Pseudoroegneria spicata*

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red



Western Snowberry
Photo: K. Kohout



Bluebunch wheatgrass

No plant community photo available

DESCRIPTION

- Very dry warm forest community with an open canopy dominated by mature Douglas-fir
- Found only in the IDFxw/03 zone.
- Shrub layer is comprised of western snowberry and bluebunch wheatgrass.
- Western snowberry is similar to the common snowberry (it is an erect deciduous shrub 0.5-1.5m tall) but has clustered stalkless flowers (the common snowberry has short stalked sparsely clustered flowers). Fruits persist through winter and are conspicuous spongy white and berry-like.
- Bluebunch wheatgrass is a large perennial bunchgrass 60-100 cm tall with many stems. Often grows in large clumps.
- NOTE: This is a rare plant community with limited distribution

FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Kamloops

BEC ZONES

IDFxw/03

ELEVATION

Not available



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Douglas-fir / Western Snowberry / Bluebunch Wheatgrass

IMPORTANT HABITAT FEATURES

Very little information is available for this plant community. Please refer to the map for the location of the BEC zone where this plant community may be found.

ADDITIONAL INFORMATION

This plant community is geographically very restricted. No known locations available from the Conservation Data Centre. Please refer to plant guidebooks such as *Plants of the Southern Interior British Columbia and the Inland Northwest* (Lone Pine Press, 463pp) for assistance with the identification of individual species comprising this community.



Hybrid White Spruce/Prickly Rose/Palmate Coltsfoot

Picea engelmannii x *glauca*/*Rosa acicularis*/*Petasites frigidus* var. *palmaris*

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Blue



Prickly rose



Palmate coltsfoot

No plant community photo available

DESCRIPTION

- Very dry mild to warm forest community dominated by hybrid white spruce.
- Found only in the IDFxw/08 and IDFxw/07 zones.
- Shrub layer is dominated by prickly rose.
- Herb layer is dominated by palmate coltsfoot.
- Prickly rose is a deciduous shrub up to 1.5 m tall. Stems are usually densely covered with many straight bristly prickles. Flowers are large and pink with 5 broad petals. Fruits are scarlet round to pear-shaped with sepals remaining at the top.
- Palmate coltsfoot is a perennial 5-50 cm tall with pink to purplish flowers in a composite head.
- NOTE: This is a rare plant community with limited distribution

FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Chilcotin, **Kamloops**, Quesnel

BEC ZONES

IDFxw/08 (not in Kamloops TSO), IDFxw/07

ELEVATION

Not available



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Hybrid White Spruce/Prickly Rose/Palmate Coltsfoot

IMPORTANT HABITAT FEATURES

Very little information is available for this plant community. Please refer to the map for the location of the BEC zone where this plant community may be found.

ADDITIONAL INFORMATION

This plant community is geographically very restricted. No known locations available from the Conservation Data Centre. Please refer to plant guidebooks such as *Plants of the Southern Interior British Columbia and the Inland Northwest* (Lone Pine Press, 463pp) for assistance with the identification of individual species comprising this community.



Hybrid White Spruce-Water Birch/Northern Gooseberry

Picea engelmannii x *glauca* - *Betula occidentalis*/*Ribes oxycanthoides*

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red



Northern gooseberry
Photo: Jahns Prairie



Water birch

No plant community photo available

DESCRIPTION

- Very dry warm forest community with an open canopy dominated by hybrid white spruce.
- Found only in the IDFxw/06 zone.
- Shrub layer is dominated by water birch and northern gooseberry.
- Northern gooseberry is an erect spreading deciduous shrub approximately 0.5-2 m tall. Leaves have a straight base (not notched) and fruit is smooth. Flowers are greenish yellow, bell-shaped and in small clusters of 2-3.
- Water birch is a coarse shrub or small deciduous tree less than 10 m tall. Bark is usually smooth and shiny dark reddish brown. Does not readily peel off. Leaves are egg-shaped.
- NOTE: This is a rare plant community with limited distribution.

FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Kamloops

BEC ZONES

IDFxw/06

ELEVATION

Not available



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Hybrid White Spruce-Water Birch/Northern Gooseberry

IMPORTANT HABITAT FEATURES

Very little information is available for this plant community. Please refer to the map for the location of the BEC zone where this plant community may be found.

ADDITIONAL INFORMATION

This plant community is geographically very restricted. No known locations available from the Conservation Data Centre. Please refer to plant guidebooks such as *Plants of the Southern Interior British Columbia and the Inland Northwest* (Lone Pine Press, 463pp) for assistance with the identification of individual species comprising this community.



Pinus contorta/Paxistima myrsinites/Calamagrostis rubescens

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red



Falsebox



Pinegrass
Photo: Thayne Tuason

No plant community photo available

DESCRIPTION

- Moist mild forest community dominated by mature stands of lodgepole pine.
- Found only in the SBSmm/03 and SBSmm/04 zones.
- The moderately well developed shrub layer is dominated by falsebox.
- Herb layer is dominated by pinegrass.
- Falsebox is an evergreen shrub with reddish-brown stems that grows to approximately 20-100 cm in height. The fragrant four pedal flowers are purplish or pink and occur all along the branches either solitarily or in groups.
- Pinegrass is a perennial grass 60-100 cm in height that usually forms an extensive ground cover. Stern basis are reddish. Inflorescence is dense and yellowish green to purple.
- NOTE: This is a rare plant community with limited distribution.

FOREST DISTRICTS

100 Mile House, Headwaters, Kamloops

BEC ZONES

SBSmm/03, SBSmm/04



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ELEVATION

The SBSmm zone occurs above the IDFmw2, or more commonly occupies the valley bottom. It generally occurs below the ESSFdc3, or ESSFwc2. At similar elevations it borders the MSdm3, SBSdw1 and ICHmk2. On north aspects, the lower elevation range is 1,100-1,150 m and the upper elevation range is 1,400-1,450 m. On south aspects, the lower elevation range is 1,200-1,250 m and the upper elevation range is 1,450-1,500 m.

IMPORTANT HABITAT FEATURES

Very little information is available for this plant community. Refer to the map for the location of the BEC zone where this plant community may be found.

ADDITIONAL INFORMATION

- The SBSmm zone occupies the mid elevation plateau on the west side of the North Thompson from Mahood Lake, south to Caverhill Lake, south and west of Little Fort. This includes TFL 18's Mann and Brookfield Creeks, plus the Lemieux, Nehalliston, Eakin, Thuya, and Darlington watersheds. The SBSmm also occurs on the top of Mount McClennan, due north of Vavenby.
- This plant community is geographically very restricted. No known locations available from the Conservation Data Centre. Please refer to plant guidebooks such as *Plants of the Southern Interior British Columbia and the Inland Northwest* (Lone Pine Press, 463pp) for assistance with the identification of individual species comprising this community.



Artemisia tridentata var. *vaseyana* / *Calamagrostis rubescens*



Mountain sagebrush with
grass herb layer

No plant community photo available

DESCRIPTION

- Shrub-steppe community that includes a shrub cover of Vasey's big sagebrush (*Artemisia tridentata* var. *vaseyana*) over a herb layer often dominated by Idaho fescue (*Festuca idahoensis*), and/or pinegrass (*Calamagrostis rubescens*) depending on the location.
- Occurs over morainal and colluvial blankets, on generally warm aspects, and on middle to upper slopes with steep to gentle gradients.
- Soils have fine to medium textures, are relatively dry (suberic to submesic in these subzones), and have medium to very rich nutrient regimes

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
Yes
- Included in SFMP:
No
- Provincial List:
Red



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FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Kamloops, Okanagan Shuswap

BEC ZONES

ESSFxc/04
MSxk/04

ELEVATION

1,450–2,060 m

IMPORTANT HABITAT FEATURES

- Structural stage: 3 (shrub/herb)
- See description for additional key habitat features.

ADDITIONAL INFORMATION

- There are 8 mapped occurrences in British Columbia.
- Found at higher elevations in the southern and central interior, specifically at Mount Kobau, Greenstone Mountain, Tenas Mountain, the Ashnola Valley, and possibly Enderby Cliffs. It occurs in small patches sparsely distributed within a very limited range.
- Please refer to plant guidebooks such as *Plants of the Southern Interior British Columbia and the Inland Northwest* (Lone Pine Press, 463pp) for assistance with the identification of individual plants comprising this community.



Betula occidentalis / *Rosa* spp.

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
Yes
- Included in SFMP:
No
- Provincial List:
Red



Water birch



Wood rose
Photo: nwplants.com

No plant community photo available

DESCRIPTION

- Shrub swamp community with a dense cover of water birch (*Betula occidentalis*) (up to 60% cover), mountain alder (*Alnus incana* ssp. *tenuifolia*) (5–10%), and red-osier dogwood (*Cornus stolonifera*) (7–40%) in the tall shrub layer.
- Willows, such as sandbar willow (*Salix exigua*), Scouler's willow (*S. scouleriana*), Bebb's willow (*S. bebbiana*), and false mountain willow (*S. pseudomonticola*), are found as tall shrubs on many sites (7–20% cover).
- Most sites have poison ivy (*Toxicodendron rydbergii*) as a low shrub (7–10% cover) and roses (*Rosa woodsii* and *R. nutkana*) (5–10% cover) as low or tall shrubs. Bittersweet (*Solanum dulcamara*), an introduced climbing vine, is present on many sites.
- The herb layer is poorly developed (< 10% cover) and variable, but generally contains a low cover of star-flowered false Solomon's seal (*Maianthemum stellatum*), and the introduced Canada thistle (*Cirsium arvense*).
- There is neither a ground layer nor epiphytes of mosses or lichens in this community.

FOREST DISTRICTS

100 Mile House, Cascades, Central Cariboo, Chilcotin, **Kamloops, Okanagan Shuswap**



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BEC ZONES

BGxh1/FI07, BGxh3/FI07, BGxw2/FI07

IDFxh1/FI07

PPxh1/FI07, PPxh1a/FI07, PPxh2/FI07

ELEVATION

250–700 m

IMPORTANT HABITAT FEATURES

- Occupies floodplains on level, depressional-swamp, or raised-levee sites, with a water table near the soil surface.
- Soils, which are formed are generally poorly drained Gleysols (Rego, Orthic, but most frequently, Humic), with organically enriched surface mineral Ah horizons, Typic Humisols, or Cumulic Regosols.
- Medium to rich nutrient regime and hygric to subhydryc ecological moisture regime.
- Sites may have standing water at the soil surface.
- This community occurs on middle stream reaches in narrow valleys, which may have a hummocky soil surface.
- Structural stage
3b (tall shrub)
4 (pole-sapling - when shrub layer is > 10 m tall)

ADDITIONAL INFORMATION

- This plant community is restricted to a very small part of the province, occurring in the main valleys and adjacent tributaries south from about Wild Horse Mountain in the Okanagan, and east/south of the confluence of the Ashnola River in the Similkameen Valley. There are isolated occurrences mid-way up some of those tributaries. This community also occurs in the Merritt and Stump Lake area.
- Note: The water birch/rose community and water birch/red osier dogwood community are synonymous (source: Conservation Data Centre).



Western Hemlock / Velvet-leaved Blueberry - Falsebox

Tsuga heterophylla / *Vaccinium myrtilloides* - *Paxistima myrsinites*

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red



Velvet-leaved blueberry
Photo: Jamie Fenneman



Falsebox

No plant community photo available

DESCRIPTION

- Wet cool forest community dominated by mature stands of western hemlock.
- Found only in the ICHwk1/03 zone.
- The well-developed shrub layer is dominated by velvet-leaved blueberry and falsebox.
- Velvet-leaved blueberry is a low deciduous shrub 10-40cm tall that grows in dense colonies. The branches are velvety especially when young. Fruit: small blue berries with heavy pale-blue bloom. Flowers are cylindrically bell-shaped with greenish-white or pink tinged pedals.
- Falsebox is an evergreen shrub with reddish-brown stems that grows to approximately 20-100cm in height. The fragrant four pedal flowers are purplish or pink and occur all along the branches either solitarily or in groups.
- NOTE: This is a rare plant community with limited distribution.

FOREST DISTRICTS

Headwaters

BEC ZONES

ICHmw3



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Western Hemlock / Velvet-leaved Blueberry - Falsebox

ELEVATION

The ICHwk1 occupies valley bottoms that range in elevation from 500-1,000 m and on slopes above the ICHmw1, mw2 and mw3. It extends to the ESSF boundary at about 1,400-1,450 m on north aspects and 1450-1,500 m on south aspects. In a few instances the ICHwk1 occurs below the ICHvk1 in which case the elevation break varies from 800 to 1,300 m.

IMPORTANT HABITAT FEATURES

Very little information is available for this plant community. Please refer to the map for the location of the BEC zone where this plant community may be found.

ADDITIONAL INFORMATION

- The ICHwk1 generally occurs above the ICHmw at the end of several valleys in the Cariboo, Monashee and Selkirk Mountains. It occurs at mid-elevations and in the valley bottoms of Scotch Creek and the Clearwater, upper North Thompson, Shuswap, Adams and Seymour River drainages. In the former Nelson Forest Region it occurs from valley bottoms to mid slopes in the upper Duncan, Incomapleux, Illecillewaet and Gold Rivers. It also occurs adjacent to the Mica Reservoir north of Smith Creek and the Columbia River drainage north of the Arrow Lakes.
- This plant community is geographically very restricted. No known locations available from the Conservation Data Centre. Please refer to plant guidebooks such as *Plants of the Southern Interior British Columbia and the Inland Northwest* (Lone Pine Press, 463pp) for assistance with the identification of individual species comprising this community.



Thuja plicata-*Picea engelmannii* x *glauca*/*Lonicera involucrata*/*Carex disperma*

CONSERVATION STATUS

- SARA Schedule:
No
- Identified Wildlife:
No
- Included in SFMP:
Yes
- Provincial List:
Red



Black twinberry



Soft-leaved sedge

No plant community photo available

DESCRIPTION

- Dry cool forest community dominated by mature stands of western redcedar and hybrid white spruce.
- Found only in the IDFdk2/07 zone.
- The poorly developed shrub layer is dominated by black twinberry.
- Herb layer is well developed and dominated by soft-leaved sedge.
- Black twinberry is an erect to straggly deciduous shrub approximately 0.5-2 m tall. Long tapering opposite leaves. Yellow tubular flowers with a large bract. Berries are black with a red bract.
- Soft-leaved sedge is a loosely tufted perennial from long slender rhizomes. The stems, which are very slender and weak, are 10-60 cm long, usually arching and clothed with old leaves at their base. The light green leaves are flat (1-2 mm wide), soft, and usually shorter than the stem.
- NOTE: This is a rare plant community with limited distribution.

FOREST DISTRICTS

Cascades, Chilliwack, **Kamloops**, **Okanagan**
Shuswap

BEC ZONES

IDFdk2/07



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ELEVATION

Southwest of Princeton the IDFdk2 occupies valley bottoms at 750 m while at the driest geographic extent of its distribution it begins at about 1,150-1,200 m. In general, it extends to 1,200-1,300 m on north aspects and 1,300-1,400 m on steep south aspects.

IMPORTANT HABITAT FEATURES

Very little information is available for this plant community. Please refer to the map for the location of the BEC zone where this plant community may be found.

ADDITIONAL INFORMATION

- The IDFdk2 variant occurs at low to mid elevations west of the Cascade range in Spius, upper Coldwater, Thynne, Tullameen, Granite, Whipsaw, and upper Similkameen drainages. It also occurs on the west side of Okanagan Lake north of Summerland to Fintry in the Lambly, Trout, and Trepanier watersheds. East of Kamloops it occurs in Paxton valley and north of Kamloops from Watching to Jamieson Creeks on the west side of the North Thompson River. East of the North Thompson it occurs in the vicinity of Badger, Knouff and Heffley lakes and the upper Louis Creek drainage.
- This plant community is geographically very restricted. No known locations available from the Conservation Data Centre. Please refer to plant guidebooks such as *Plants of the Southern Interior British Columbia and the Inland Northwest* (Lone Pine Press, 463pp) for assistance with the identification of individual species comprising this community.



WILDLIFE

American badger
 Band-tailed Pigeon
 Bighorn sheep
 Bull trout
 Burrowing Owl
 Caribou - Southern Mountain population
 Common Nighthawk
 Fisher
 Flammulated Owl
 Fringed myotis
 Gopher snake, deserticola ssp.
 Great basin spadefoot
 Great Blue Heron, herodias ssp.
 Grizzly bear
 Lewis's Woodpecker
 Little brown myotis
 Long-billed Curlew
 North American racer
 Northern rubber boa
 Olive-sided Flycatcher
 Painted turtle - Intermountain-Rocky Mountain population
 Peregrine Falcon, anatum ssp.
 Prairie Falcon
 Rusty Blackbird
 Sage Thrasher



Sandhill Crane

Sharp-tailed Grouse, columbianus ssp.

Short-eared Owl

Spotted bat

Western Screech Owl, macfarlanei ssp.

Western toad

White sturgeon - Middle Fraser River population

Wolverine, luscus ssp.

Yellow-breasted Chat



PLANTS AND PLANT COMMUNITIES

Alkali saltgrass - Nuttall's alkaligrass
 Douglas-fir - ponderosa pine / bluebunch wheatgrass
 Douglas-fir - Rocky Mountain juniper / kinnikinnick
 Douglas-fir / western snowberry / bluebunch wheatgrass
 Hybrid white spruce / prickly rose / palmate coltsfoot
 Hybrid white spruce - water birch / northern gooseberry
 Lodgepole pine / falsebox / pinegrass
 Mountain sagebrush / pinegrass
 Water birch / roses
 Whitebark pine

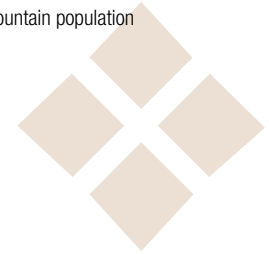
WILDLIFE

American badger
 Band-tailed Pigeon
 Bighorn sheep
 Blotched tiger salamander
 Bull trout
 Caribou - Southern Mountain population
 Coeur d'Alene salamander
 Columbia sculpin
 Common Nighthawk
 Cutthroat trout, lewisi ssp.
 Fisher
 Flammulated Owl
 Fringed myotis
 Gopher snake, deserticola ssp.
 Grasshopper Sparrow
 Great basin spadefoot
 Great Blue Heron, herodias ssp.
 Grizzly bear
 Lewis's Woodpecker
 Little brown myotis
 Monarch
 North American racer
 Northern myotis
 Northern rubber boa
 Olive-sided Flycatcher



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Painted turtle - Intermountain-Rocky Mountain population
 Peregrine Falcon, anatum ssp.
 Prairie Falcon
 Rusty Blackbird
 Short-eared Owl
 Shorthead sculpin
 Speckled dace
 Western rattlesnake
 Western Screech Owl, macfarlanei ssp.
 Western skink
 Western toad
 White-headed Woodpecker
 Williamson's Sapsucker
 Wolverine, luscus ssp.
 Yellow-breasted Chat



PLANTS AND PLANT COMMUNITIES

Whitebark pine

WILDLIFE

American badger
 Band-tailed Pigeon
 Bighorn sheep
 Bull trout
 Burrowing Owl
 Coastal tailed frog
 Columbia sculpin
 Common Nighthawk
 Dun skipper
 Fisher
 Flammulated Owl
 Fringed myotis
 Gopher snake, deserticola ssp.
 Grasshopper Sparrow
 Great basin spadefoot
 Great Blue Heron, herodias ssp.
 Grizzly bear
 Half-moon hairstreak
 Lewis's Woodpecker
 Little brown myotis
 Long-billed Curlew
 Monarch
 Mountain beaver
 North American racer
 Northern myotis
 Northern rubber boa
 Olive-sided Flycatcher



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Peregrine Falcon, anatum ssp.

Prairie Falcon

Rusty Blackbird

Sage Thrasher

Sandhill Crane

Sharp-tailed Grouse, columbianus ssp.

Short-eared Owl

Sonora skipper

Speckled dace

Spotted bat

Spotted Owl

Western rattlesnake

Western Screech Owl, macfarlanei ssp.

Western skink

Western toad

White sturgeon - Lower & Middle Fraser River populations

White-headed Woodpecker

Williamson's Sapsucker

Wolverine, luscus ssp.

Yellow-breasted Chat



PLANTS AND PLANT COMMUNITIES

Alkali saltgrass - Nuttall's alkaligrass

Black cottonwood - water birch

Douglas-fir / common snowberry - saskatoon

Douglas-fir / western snowberry / bluebunch wheatgrass

Douglas-fir - ponderosa pine / bluebunch wheatgrass

Douglas-fir - Rocky Mountain juniper / kinnikinnick

Cascades Forest District ★ (cont'd)

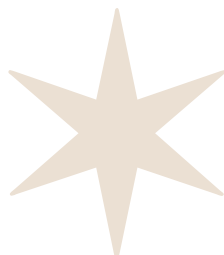
Hybrid white spruce / prickly rose / palmate coltsfoot
 Hybrid white spruce - water birch / northern gooseberry
 Mountain sagebrush / pinegrass
 Water birch / roses
 Western redcedar - hybrid white spruce / black twinberry / soft-leaved sedge
 Whitebark pine



Headwaters Forest District ★

WILDLIFE

American badger
 Band-tailed Pigeon
 Bighorn sheep
 Bull trout
 Caribou - Southern Mountain population
 Common Nighthawk
 Cutthroat trout, lewisi ssp.
 Fisher
 Great Blue Heron, herodias ssp.
 Grizzly bear
 Lewis's Woodpecker
 Little brown myotis
 Long-billed Curlew
 Northern myotis
 Olive-sided Flycatcher
 Painted turtle - Intermountain-Rocky Mountain population
 Prairie Falcon



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Headwaters Forest District ★ (cont'd)

Rusty Blackbird
 Sandhill Crane
 Short-eared Owl
 Western toad
 White sturgeon - Upper Fraser River population
 White-headed Woodpecker
 Wolverine, luscus ssp.
 Yellow-breasted Chat



PLANTS AND PLANT COMMUNITIES

Cryptic paw
 Lodgepole pine / falsebox / pinegrass
 Western hemlock / velvet-leaved blueberry - falsebox
 Whitebark pine

Kamloops Forest District ◆

WILDLIFE

American badger
 Band-tailed Pigeon
 Bighorn sheep
 Brewer's Sparrow, breweri ssp.
 Bull trout
 Burrowing Owl
 Common Nighthawk
 Fisher
 Flammulated Owl
 Fringed myotis



Gopher snake, deserticola ssp.
 Great basin spadefoot
 Great Blue Heron, herodias ssp.
 Grizzly bear
 Lewis's Woodpecker
 Little brown myotis
 Long-billed Curlew
 Monarch
 North American racer
 Northern rubber boa
 Olive-sided Flycatcher
 Painted turtle - Intermountain-Rocky Mountain population
 Peregrine Falcon, anatum ssp.
 Prairie Falcon
 Rusty Blackbird
 Sage Thrasher
 Sandhill Crane
 Sharp-tailed Grouse, columbianus ssp.
 Short-eared Owl
 Spotted bat
 Western rattlesnake
 Western Screech Owl, macfarlanei ssp.
 Western toad
 White sturgeon - Middle Fraser River population
 White-headed Woodpecker
 Williamson's Sapsucker
 Wolverine, luscus ssp.
 Yellow-breasted Chat



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Alkali saltgrass - Nuttall's alkaligrass
 Black cottonwood - water birch
 Douglas-fir / common snowberry - saskatoon
 Douglas-fir / western snowberry / bluebunch wheatgrass
 Douglas-fir - ponderosa pine / bluebunch wheatgrass
 Douglas-fir - Rocky Mountain juniper / kinnikinnick
 Hybrid white spruce / prickly rose / palmate coltsfoot
 Hybrid white spruce - water birch / northern gooseberry
 Lodgepole pine / falsebox / pinegrass
 Mountain sagebrush / pinegrass
 Water birch / roses
 Western redcedar - hybrid white spruce / black twinberry / soft-leaved sedge
 Whitebark pine



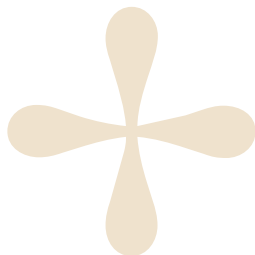
Okanagan Shuswap Forest District ✦

WILDLIFE

American badger
 Band-tailed Pigeon
 Bighorn sheep
 Blotched tiger salamander
 Brewer's Sparrow, breweri ssp.
 Bull trout
 Burrowing Owl
 Caribou - Southern Mountain population

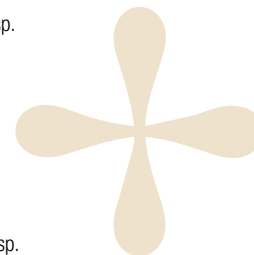


Columbia sculpin
 Common Nighthawk
 Cutthroat trout, lewisi ssp.
 Fisher
 Flammulated Owl
 Fringed myotis
 Gopher snake, deserticola ssp.
 Grasshopper Sparrow
 Great basin spadefoot
 Great Blue Heron, herodias ssp.
 Grizzly bear
 Half-moon hairstreak
 Lewis's Woodpecker
 Little brown myotis
 Long-billed Curlew
 Monarch
 Mountain beaver
 North American racer
 Northern myotis
 Northern rubber boa
 Olive-sided Flycatcher
 Painted turtle - Intermountain-Rocky Mountain population
 Pallid bat
 Peregrine Falcon, anatum ssp.
 Prairie Falcon
 Rusty Blackbird
 Sage Thrasher
 Sandhill Crane



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 Western rattlesnake
 Western Screech Owl, macfarlanei ssp.
 Western skink
 Western toad
 White-headed Woodpecker
 Williamson's Sapsucker
 Wolverine, luscus ssp.
 Yellow-breasted Chat



PLANTS AND PLANT COMMUNITIES

Black cottonwood - water birch
 Douglas-fir / common snowberry - saskatoon
 Douglas-fir - ponderosa pine / bluebunch wheatgrass
 Mountain sagebrush / pinegrass
 Water birch / roses
 Western redcedar - hybrid white spruce / black twinberry / soft-leaved sedge
 Whitebark pine

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Selected Species at Risk found in Forest and Range Habitats within the Southern Interior of British Columbia

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