

# Species at Risk in B.C.

# 2016

## FIELD GUIDE





# About this guide

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Currently there are ~200 federally listed species at risk in British Columbia. This guide contains information about 85 of these unique birds, plants and other wildlife that are at risk of disappearing. The 85 species selected for this guide have, or will soon have, recovery documents available online. Recovery documents contain information about the species and what it needs to survive or recover (visit: [www.sararegistry.gc.ca](http://www.sararegistry.gc.ca) to learn more).

This pocket guide provides a few highlights from the recovery documents that could help you to: identify these terrestrial species at risk, find the places where they may live, and learn about the threats they face.

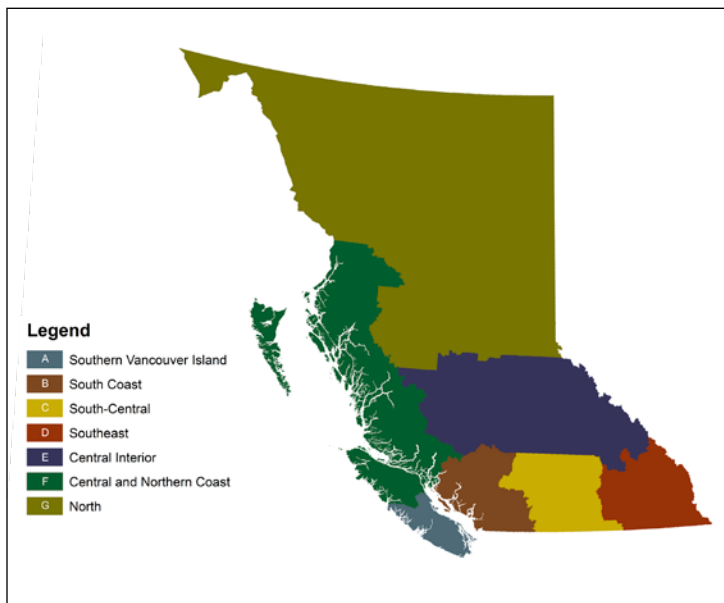
Note that the threats to species are broadly grouped in this guide to help land managers identify which species they want to learn more about; it does not mean that all types of activities carried out by a given industry represent a threat to the species. Land management practices within the industries identified may benefit species (e.g., riparian fencing) or they may harm the species (e.g., over-grazing); see the recovery documents for details.

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*Note: This guide provides a very brief overview of key topics included in the recovery document for each species and should not be considered a replacement for the recovery documents.*

## How to Use this Guide

This guide organizes species alphabetically and by geographic region. To find out which species may be found in your area, refer to the coloured map below, and look for the corresponding colour on the bottom corner of each species page.



## I Saw One! What Now?

Some species at risk are very rare, hard to see, or are found in only a few places. Other species at risk may be abundant in some places, are easy to spot, or can be found throughout B.C. Whichever the case, follow these steps if you think you see a species at risk:

- Take a picture! Include a common object in the picture for scale, if possible.

- Document where and when you saw it. Be as specific as possible (GPS points are great!).
- Report the sighting to the BC Conservation Data Centre at: [www.env.gov.bc.ca/wildlife/wsi/incidental\\_obs.htm](http://www.env.gov.bc.ca/wildlife/wsi/incidental_obs.htm)
- Contact Environment and Climate Change Canada if you observe any threats to the species or its habitat at: [ec.ep.rpy-sar.pyr.ec@canada.ca](mailto:ec.ep.rpy-sar.pyr.ec@canada.ca)
- If the species, or its habitat, is found on land you own or manage, please see the appendix of this guide to learn more about the Species at Risk Act and how it applies on private land.

### **Definitions: Species at Risk Status**

**Extinct** - A wildlife species that no longer exists.

**Extirpated** - A wildlife species that no longer exists in the wild in Canada, but exists elsewhere.

**Endangered** - A wildlife species facing imminent extirpation or extinction.

**Threatened** - A wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

**Special Concern** - A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.



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# Alkaline Wing-nerved Moss

*(Threatened)*

Alkaline Wing-nerved Moss has light green or yellow-green leaves, each about 1 mm (0.04") long. It can grow in small tufts or over larger areas like a carpet.

It is found in south-central and southeastern BC.



© Terry McIntosh

## HABITAT

- The edges of lakes, sloughs, and seasonal salty ponds
- Open areas without tall vegetation

## THREATS TO SURVIVAL OR RECOVERY

- Agricultural uses that cause loss of habitat
- ATV use outside of existing trails or roads that damages habitat

# American Badger

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(Endangered)

The American Badger can grow up to 76 cm (~30") long. It has a heavy body with short legs and tail. Its fur is mainly grey with distinct white stripes on its head and characteristic "badges" on each cheek.



Courtesy of U.S. Fish & Wildlife

The *jeffersonii* sub species is found in the dry interior of southern BC.

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## HABITAT

- Open areas such as: open forests, grasslands, pastures, recently cleared areas, and burned sites

## THREATS TO SURVIVAL OR RECOVERY

- Development and fire management practices that cause habitat loss or damage
- Vehicles which can hit or run over this species
- Trapping and persecution by humans
- Loss of prey

# Ancient Murrelet

## *(Special Concern)*

The Ancient Murrelet is small seabird, ~25 cm (10") long. Adults are mostly grey and black with white undersides. It breeds in burrows and feeds in the ocean.

The Ancient Murrelet is found on Haida Gwaii during the breeding season.



© Dan Tallman

## HABITAT

- Forest floors with soft soils
- Ocean

## THREATS TO SURVIVAL OR RECOVERY

- Development and industrial activities that cause loss of forest habitats
- Fisheries practices that result in this bird being caught as bycatch
- Predators in breeding colonies

# Band-tailed Pigeon

## *(Special Concern)*

The Band-tailed Pigeon can grow up to 40 cm (~16") long. It looks similar to the city-dwelling Rock Pigeon but it is larger, lighter grey, and has a purple-grey head with a white line along the back of its neck. It gets its name from the grey band on the end of its dark tail.

It is found on the southern coast and islands of BC with smaller numbers stretching eastward.



© Jeanne Ross

## HABITAT

- Forest edges and openings, temperate evergreen rainforest, urban yards and parks, golf courses, orchards, and agricultural lands
- Mineral sites and underground springs with minerals

## THREATS TO SURVIVAL OR RECOVERY

- Residential development and industrial activities that cause habitat loss
- Forestry practices that result in fewer fruit-bearing plants and older trees used for nesting
- Direct and indirect pesticide poisoning at foraging and mineral sites
- Parasite infection (e.g., trichomoniasis)

# Barn Owl

## Western Population

*(COSEWIC Assessed as Threatened)*

The Barn Owl grows to ~37 cm (15½") long with a wingspan of 120 cm (~4'). It has a distinctive, pale, heart-shaped face and dark eyes. Its feathers are spotted and multi-coloured, including: grey, brown, tan, and white.

The Barn Owl is found in southwestern BC.



"Female Barn Owl 1" by Tony Hisgett

## HABITAT

- Grasslands, meadows, marshlands, and open farmland
- Human-made buildings (e.g., barns), hollow trees, and trees with cavities

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development that causes habitat loss
- Changes to land use or structures of older buildings that cause habitat or prey loss
- Indirect poisoning from rodenticides

# Behr's Hairstreak

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*(Endangered)*

The Behr's Hairstreak is a small butterfly, ~25-28mm (~1") wide. Its wings are an orange-yellow colour with a brown border.

It is found in British Columbia's southern Okanagan valley.



© CrispinGuppy

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## HABITAT

- Dry banks of rivers or streams
- Steep hillsides at valley bottoms
- Antelope-Brush

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that causes habitat loss; especially loss of Antelope-Brush
- Recreational use (e.g., ATVs) that causes habitat damage
- Introduced and invasive species



# Bent Spike-rush

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*(Endangered)*

Bent Spike-rush can grow up to 20cm (~8") tall, but is typically somewhat smaller. It grows in "tufts" with many thin stalks and a single spike with small flowers.

They are found on the eastern shore of Osoyoos Lake.



© Terry McIntosh

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## HABITAT

- Wetlands
- Open sandy or muddy soils

## THREATS TO SURVIVAL OR RECOVERY

- Agricultural development that causes habitat loss
- Invasive species
- Lake level management that causes habitat damage

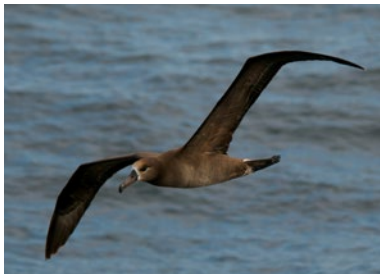
# Black-footed Albatross

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## *(Special Concern)*

The Black-footed Albatross grows to 74 cm (~29") long. Adults have dusky brown feathers, with lighter areas around the base of the bill, under the eyes, and on the tail.

It is found in the Pacific Ocean off of BC's coast.



© Catherine Jardine

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## HABITAT

- Pacific Ocean

## THREATS TO SURVIVAL OR RECOVERY

- Fishing practices that result in this bird being caught as by catch
- Ocean plastics and other pollution

# Blue-grey Tail Dropper

*(Endangered)*

The Blue-grey Taildropper is typically between 2-3 cm ( $\sim\frac{3}{4}$  -1") long. This slug has a slender body and grooved markings. It gets its name from its blue to blue-grey colour and its ability to detach its tail which it leaves behind while escaping predators.

It is found in a few locations on southern Vancouver Island.



"Blue-grey Taildropper slug (Prophysaon coeruleum)" by Tab Tannery

## HABITAT

- Damp coniferous or mixed-wood forests with fallen leaves and branches

## THREATS TO SURVIVAL OR RECOVERY

- Development or other changes in land use that cause habitat loss
- Introduced species that act as predators or competition
- Summer droughts that can isolate populations

# Canada Warbler

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## *(Threat Status)*

The Canada Warbler is 12-15 cm (~5-6") long. It has a bluish-grey tail and back with a yellow throat and breast.

The Canada Warbler is found in northeastern BC.



Courtesy of U.S. Fish & Wildlife Services

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## HABITAT

- Wet, mixed deciduous-coniferous forest

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that cause habitat loss

# Cliff Paintbrush

(Threatened)

Cliff Paintbrush is perennial plant that grows to 10-20 cm (~4-8") tall. It has multiple stems with a few small, green flowers bunched together in a thick spike at the top. The flowers are surrounded by bright red leaves.



*Castilleja rupicola* (Scrophulariaceae);  
"Cliff paintbrush" Brent Miller

It is found in the mountains of BC's Chilliwack and Skagit River Valleys.

## HABITAT

- Subalpine or alpine areas
- Open, moderately steep slopes
- Gravelly or stony soils, crevices on cliffs, rock outcrops, and high ridges

## THREATS TO SURVIVAL OR RECOVERY

- Forestry or mining practices that cause loss or damage to habitat
- Recreational activities (e.g., hiking, mountain-biking, off-roading) that damage individual plants

# Coastal Giant Salamander

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*(Threatened)*

The Coastal Giant Salamander can grow up to 35 cm (~14") long, making it the largest salamander in Canada. It has a thick body and legs, a large head and a blunt snout. Its skin has a marbled pattern of tan, copper or gold mixed with dark brown to grey.



© Hugh Griffith

It is found in the Chilliwack River valley of British Columbia.

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## HABITAT

- Damp, mature forest with decaying logs and leaves
- Small, shaded streams that are cool and clean, with rocky bottoms, many pools, and slow, choppy ripples

## THREATS TO SURVIVAL OR RECOVERY

- Development and forestry practices that cause habitat loss, or damage
- Herbicides, pesticide run-off, and removal of stream-side vegetation
- A fungal disease spreading in frogs and salamanders

# Coastal Tailed Frog

## *(Special Concern)*

The Coastal Tailed Frog grows to only ~2-5 cm (~¾ – 2”) long. It can be tan, brown, olive green or rust colour. Males have a short cone-shaped organ that looks like a tail.

It is found in the Coast and Cascade mountain ranges of British Columbia.



© Alexis McEwan

## HABITAT

- Mountainous, damp older forest with lots of ground cover
- Cold, clear, swift mountain streams that have large, smooth stones and cobbles

## THREATS TO SURVIVAL OR RECOVERY

- Forestry practices that cause habitat loss, or damage
- Activities, such as road building, that cause increased sand and gravel in streams
- Changes in stream flow and stability
- A fungal disease spreading in frogs and salamanders

# Coeur d'Alene Salamander

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## *(Special Concern)*

The Coeur d'Alene Salamander grows to ~11 cm (4") long. It is dark brown or black with light patches on its sides and legs. It has a thick light orange or yellow stripe along its back and tail.

It is found in southeastern BC.



© Suzanne L. Collins

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## HABITAT

- Damp shady areas such as stream banks, rock walls with seeping water, and waterfall splash zones
- Underground spaces that do not freeze

## THREATS TO SURVIVAL OR RECOVERY

- Highway widening that causes damage to habitat
- Logging that causes loss of forest cover
- Forestry activities or hydro-electric development that divert water and damage habitat



# Common Nighthawk

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*(Threatened)*

The Common Nighthawk grows to ~21-25 cm (8-10") long. It is well camouflaged with its spotted dark brown, black, grey, white, and tan feathers. It has large eyes, a very small bill, and long, pointed wings with a wide white stripe underneath. It hunts flying insects such as beetles, moths, caddisflies and flying ants.



"Common Nighthawk" by Andy Reago & Chrissy McClarren

It is found throughout most of BC.

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## HABITAT

- Open areas such as: beaches, forest clearings, wetlands, rocky outcrops, gravel roads, and railways

## THREATS TO SURVIVAL OR RECOVERY

- Forestry practices that cause habitat loss or damage
- Pesticide use that causes declining numbers of flying insect prey
- Vehicles which can hit or run over this species

# Desert Nightsnake

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*(Endangered)*

The Desert Nightsnake can grow to ~60 cm (~23") long. Its sides and back are light in colour with dark brown blotches. Its belly is white or light yellow.

It is found in BC's South Okanagan and Lower Similkameen valleys.



© Suzanne L. Collins

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## HABITAT

- Hot and rugged rocky slopes

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that cause habitat loss or damage

# Dun Skipper

## *vestris* subspecies

(Threatened)

Dun Skipper, *vestris* subspecies, is a butterfly with a wingspan of ~2-3 cm (~1"). It has dark, purple-brown wings and a yellow-orange body.

It is found on the islands and mainland of southwestern BC.



"Dun skipper in purple vitex" by Vicki DeLoach

## HABITAT

- Grasslands, wetlands, wet areas (e.g., seepages) and roadsides
- Sedges, grasses, and flowering plants (e.g., Spreading Dogbane, Alfalfa)

## THREATS TO SURVIVAL OR RECOVERY

- Infilling of open wet areas or other land use changes that cause habitat loss
- Use of pesticides to control European Gypsy Moth
- Increases in summer droughts

# Edward's Beach Moth

*(Endangered)*

Edwards' Beach Moth is a medium-sized moth with a wingspan of ~3.2 to 3.8 cm (~1.26-1.50"). Its head, body, and antennae are a brown-grey colour.

It is found in a few locations on Vancouver Island and the Gulf Islands.



© Nick Page

## HABITAT

- Sheltered, sparsely-vegetated sandy beaches, beach dunes, and sandy beaches along saltmarshes

## THREATS TO SURVIVAL OR RECOVERY

- Development and recreational activities that cause habitat loss or damage
- Invasive species such as Scotch Broom
- Deer that damage habitat

# Great Basin Gophersnake

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*(Threatened)*

The Great Basin Gophersnake can grow up to 2.4 m (~8') long, but is typically smaller. It is light brown with large dark brown squares covering most of its body. These snakes hibernate in communal rock dens and rodent burrows. It is found in south-central BC.



© Kella Sadler

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## HABITAT

- Grasslands and surrounding dry forests

## THREATS TO SURVIVAL OR RECOVERY

- Development or land use changes that cause habitat loss or damage
- Vehicles which can hit or run over this species

# Great Basin Spadefoot

*(Threatened)*

The Great Basin Spadefoot is ~40 to 65 mm (~1.5 - 2.5") long. Its back is light grey, olive, or brown, with lighter streaks and small raised dark blotches. It has a black "spade" on the sole of each hind foot which, it used for burrowing.



© Virgil C. Hawkes

It is found in south-central British Columbia.

## HABITAT

- Dry grasslands, wetlands, and temporary pools below 600 m (~1969')

## THREATS TO SURVIVAL OR RECOVERY

- Residential and agricultural development that cause habitat loss
- Pesticides
- Fish stocked for sport
- Non-native bullfrogs

# Great Blue Heron

*fannini* subspecies

## *(Special Concern)*

The Great Blue Heron grows to over 1 m (~3') tall. Its feathers are blue-grey with white streaks. In its characteristic flight, its wings beat slowly and deeply while it holds its neck in an S-shape.

They are found on the coast and islands of British Columbia.



© Rob Murota

## HABITAT

- Seacoasts, fresh or salt water marshes, rivers, grasslands, ditches, and wet agricultural fields
- Large trees such as: Red Alder, Black Cottonwood, Bigleaf Maple, Sitka Spruce and Douglas-fir

## THREATS TO SURVIVAL OR RECOVERY

- Forestry practices and urban and industrial development that cause habitat loss
- Human activities around nest sites that disturb these birds (e.g., ATVs, hiking, biking)
- Bald eagles which prey on Herons (especially eggs and chicks) and cause adults stress which reduces the number of chicks that survive

# Half-moon Hairstreak

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*(Endangered)*

The Half-moon Hairstreak is a small butterfly with a wingspan of ~3 cm (~1"). It has brown or black- brown wings with lighter edges and dark spots.

It is found in south-central BC.



© Kella Sadler

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## HABITAT

- Sagebrush, Bluebunch, and Wheatgrass habitat where Silky Lupine is present

## THREATS TO SURVIVAL OR RECOVERY

- Development, other land use changes, and agricultural practices that cause habitat loss or damage



# Lewis's Woodpecker

*(Threatened)*

The Lewis's Woodpecker grows to ~26-28 cm (10-11") long. The feathers on its back are green-black, its belly is pink-red, and it has a dark red patch on its face.

It is found in the southern half of BC's interior.



© U.S. Fish & Wildlife Services

## HABITAT

- Open areas with dead or dying trees including: ponderosa pine, black cottonwood, and coniferous (cone-bearing) trees

## THREATS TO SURVIVAL OR RECOVERY

- Changes in land use, or agricultural practices that cause habitat loss or damage
- Removal of nest trees or potential nest trees (e.g. for firewood or fire suppression)

# Little Brown Myotis

*(Endangered)*

The Little Brown Myotis (also called Little Brown Bat) is a small bat with a wingspan of ~22-27 cm (~8.5-10.5"). Its fur is cinnamon to dark brown and lighter on the underside.

It is found throughout BC.



"Little brown bat in Ohio, 2014" by SMBishop

## HABITAT

- Arid grassland, Ponderosa Pine forests, coastal forests and northern boreal forests
- Caves
- Human made structures (e.g., attics, mines)

## THREATS TO SURVIVAL OR RECOVERY

- White-nose Syndrome (a fungus), which kills the bat

# Lyall's Mariposa Lily

*(COSEWIC assessed as Special Concern)*

Lyall's Mariposa Lily is a perennial plant with a single stalk that is usually between 10-30 cm (~4-12") tall. It has star-shaped flowers which are white or very light purple.

It is found in a small area of south-central B.C.



Photo: Kella Sadler

## HABITAT

- Grasslands and natural forest openings
- Dry, sunny areas with few shrubs

## THREATS TO SURVIVAL OR RECOVERY

- Agricultural practices that cause habitat loss and damage
- Invasive plants that compete with this species
- Tree growth that causes loss of open areas

# Marbled Murrelet

*(Threatened)*

The Marbled Murrelet is a small, plump seabird which grows to ~25 cm (10") long, and weighs ~230 g (8 oz.). Its feathers are black and white or marbled grey-brown depending on its age and the time of year.

It is found along the coast and islands of BC.



"Marbled Murrelet" by Tom Benson

## HABITAT

- Marine areas close to shore and sheltered waters
- Old- growth trees up to 50 km (~31.1 miles) inland with high, well-hidden, moss-covered branches

## THREATS TO SURVIVAL OR RECOVERY

- Loss of inland nesting habitat and marine feeding habitat
- Contamination from oil spills
- Gill-nets used for fishing that entangle birds

# Mexican Mosquito Fern

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*(Threatened)*

The Mexican Mosquito Ferns is only ~1-1.5 cm (~0.5") wide. Its tiny leaves can be red or green. It floats on the surface of lakes, streams and other fresh water.

It is found in south-central BC.



© Ozarks Regional Herbarium; photo: Paul Redfearn

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## HABITAT

- Still, shallow waters with low salinity

## THREATS TO SURVIVAL OR RECOVERY

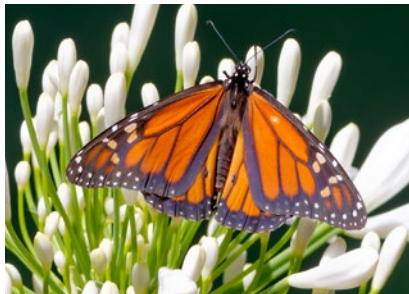
- Road construction or urban development that fills in water bodies where these ferns live
- Activities that change the chemistry of the water

# Monarch

## *(Special Concern)*

The Monarch is a large butterfly with a wingspan of ~10 cm (4"). Its wings have a distinct bright orange, black, and white pattern.

It is found in much of BC.



"Monarch Butterfly, *Danaus plexippus*" by David Levinson

## HABITAT

- Farmland, meadows, roadside ditches, and open wetlands
- Milkweed and other wildflowers

## THREATS TO SURVIVAL OR RECOVERY

- Herbicides and pesticides that cause habitat loss or damage
- Invasive, non-native plants

# Mormon Metalmark

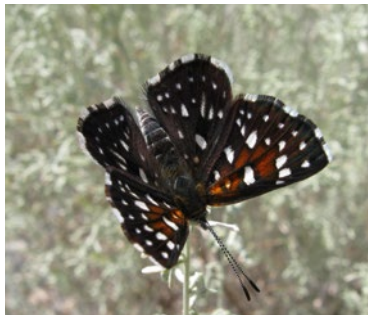
## Southern Mountain Population

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*(Endangered)*

The Mormon Metalmark has a wingspan of 25-35 mm (~1-1.5"). Its wings are dark brown and red-brown with white spots.

The Mormon Metalmark Southern Mountain Population is found in south-central BC.



©Jeremy Gatten

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## HABITAT

- Dry regions, often with hillsides, dunes, and embankments
- Barren, sandy, or gravelly soils

## THREATS TO SURVIVAL OR RECOVERY

- Construction and maintenance of transportation and utility corridors that cause habitat loss or damage
- Invasive plants that compete with the Snow Buckwheat (which this butterfly relies on)
- Pesticide use and agricultural practices that cause habitat loss or damage

# Mountain Beaver

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## *(Special Concern)*

The Mountain Beaver grows to ~30-47 cm (12-19") long. It is more closely related to squirrels than beavers. It has a thick body, covered with coarse, dark brown fur, and a short, furry tail. It nests and stores food underground.

It is found on the southwestern mainland of BC.



Photo by Jacob Kirkland

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## HABITAT

- Cool, damp forested areas with loose soils

## THREATS TO SURVIVAL OR RECOVERY

- Urban development and agriculture and forestry practices that cause habitat loss or damage



# Mountain Holly Fern

*(Threatened)*

Mountain Holly Fern has evergreen fronds (leaves made up of leaflets) that are 10-50 cm (~10-16") long and 3-7 cm (~1.25-3") wide.

It is found in the Tulameen River area of southwestern BC.



Photo: Kella Sadler

## HABITAT

- Open areas with sparse vegetation
- Dry, shallow soils with low nutrients on top of rocks containing iron and magnesium

## THREATS TO SURVIVAL OR RECOVERY

- Mining, mineral exploration, forest management practices, or road construction that cause habitat loss or damage

# Northern Goshawk

## *laingi* subspecies

### *(Threatened)*

Northern Goshawk is medium-sized raptor, about 55–61 cm (~21–24") long. Its back and the top of its wings and head are a dark grey colour. It has a white stripe above its eyes and a black-grey mask. Its underside is white-pale grey, with streaks.

It is found along the central and northern coast and islands of BC.



© Erica L. McClaren

## HABITAT

- Forest stands with tall old-growth or mature trees, open understories, and closed canopies

## THREATS TO SURVIVAL OR RECOVERY

- Forestry practices that remove or damage habitat
- Noise from human disturbances at nesting sites

# Northern Leopard Frog

*(Endangered)*

The Northern Leopard Frog can grow to over 10 cm (4") long. Its head, back, and legs are green or brown with dark spots surrounded by light-coloured rings. Its belly is a pearly white colour.

The endangered Rocky Mountain Population of this frog is found in southeastern BC.



© Larry Halverson

## HABITAT

- Ponds, streams, and other shallow water bodies that do not completely freeze

## THREATS TO SURVIVAL OR RECOVERY

- Pollution (e.g., pesticides, fertilizers) and increased sediments that reduce water quality
- Agricultural practices that cause habitat damage
- An introduced fungus which causes a skin disease in frogs and salamanders

# Northern Myotis

*(Endangered)*

The Northern Myotis is a small bat, with a wingspan of ~22-27 cm (~8.5-10.5"). It has long pointed ears and a furry brown body.

It is found in northeastern BC.



Photo by Brock Fenton

## HABITAT

- Forests and forest edges
- Caves, mines, and tunnels
- Human made structures such as barns and attics

## THREATS TO SURVIVAL OR RECOVERY

- Wind turbines that these bats can collide with or be hit by the moving blades
- Other activities that cause habitat loss or damage (e.g., closing up attics)
- White-nose Syndrome (a fungus), which kills the bat

# Northern Red-legged Frog

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## *(Special Concern)*

The Northern Red-legged Frog can grow to ~10 cm (~4") long. Its back is brown, grey, olive, or rust colour with small black markings and ridges running down each side. The underside of its lower belly and legs are bright red.



"Rana aurora" by Walter Siegmund

It is found on Vancouver Island and the southern half of BC's coast.

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## HABITAT

- Mature, damp forests far from open water, with fallen logs, coarse downed wood, and fallen leaves
- Slow-flowing, cool streams
- Ponds, marshes, or lake edges with aquatic plants

## THREATS TO SURVIVAL OR RECOVERY

- Development that causes habitat loss
- Introduced, invasive Bullfrogs and fish that take away habitat and eat Red-legged Frogs

# Northern Rubber Boa

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## *(Special Concern)*

The Northern Rubber Boa can grow to 75 cm (~30") long. The female Rubber Boa is on average 20 percent longer and almost twice as heavy as the male. It is red-brown to yellow-brown on top and lighter in colour underneath. It looks wrinkled but has smooth scales giving it a rubbery appearance. This boa has a short, blunt tail resembling a second head, which it uses in self-defense. It is the only boa in Canada.



"Northern Rubber Boa" by Natalie McNear

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## HABITAT

- Rocky outcrops in forest clearings, stream banks, thickets, and grasslands
- Large wood, large rocks, underground rock crevices, and rodent burrows

## THREATS TO SURVIVAL OR RECOVERY

- Urban development, construction, road maintenance, and agriculture and forestry practices that cause habitat loss or damage
- Vehicles that can hit or run over these snakes

# Northern Saw-whet Owl

## *brooksi* subspecies

(*Threatened*)

The Northern Saw-whet Owl *brooksi* subspecies is a small owl, ~20 cm (8") long. It is red-brown with light flecks and a white v-shaped patch above its eyes.

The *brooksi* subspecies of this owl is found only in BC's Haida Gwaii archipelago.



© Her Majesty the Queen in Right of Canada, represented by the Minister of the Environment

## HABITAT

- Low elevation mature and old forests with dead or dying standing trees (i.e., snags)

## THREATS TO SURVIVAL OR RECOVERY

- Forestry practices that cause habitat loss or damage
- Invasive species that reduce prey

# Nuttall's Cottontail

*(Special Concern)*

Nuttall's Cottontail grows to ~34-38cm (~13-15"). It has grey-brown fur on its head and back, and a white underside which is most visible on its fluffy tail.

It is found in the Okanagan and Similkameen valleys of southern BC.



© Jared Habbs

## HABITAT

- Conifer forests (cone-barring trees)
- Rocky outcrops, ridges and slopes with thick Sagebrush
- Dry areas beneath Sagebrush covered slopes

## THREATS TO SURVIVAL OR RECOVERY

- Residential, agricultural, and hydro-electric development that cause habitat loss or damage



# Oldgrowth Specklebelly Lichen

## *(Special Concern)*

Oldgrowth Specklebelly Lichen grows to 5-12 cm (~2-5") across. Its upper surface is pale blue-green. Its underside is light brown with tiny white spots. It is often found with Sword Fern, False Azalea, Alaska Blueberry, Oval-leaf Blueberry, and Dwarf Dogwood.

It is found on the coast and islands of British Columbia.



"Pseudocyphellaria rainierensis" by Richard Droker

## HABITAT

- Lowland to mid-elevation old-growth forests
- Open, humid, stable forests with conifers (cone-barring trees)

## THREATS TO SURVIVAL OR RECOVERY

- Logging practices, road construction, and hydro-electric development that cause habitat loss or damage
- Climate change causing an increase in storms

# Olive-sided Flycatcher

*(Threatened)*

The Olive-sided Flycatcher is a medium-sized songbird which grows to ~18-20 cm (7-8") long. Its back and side feathers are a deep brown to olive-grey. Its throat and belly are white.

It is found throughout most of BC, but not in Haida Gwaii.



Photo by Jerry Oldenettel

## HABITAT

- Forest openings and edges, often near water bodies
- Tall living or dying trees (i.e, snags)

## THREATS TO SURVIVAL OR RECOVERY

- Logging and forest management practices that cause habitat loss or damage
- Pesticides use that causes declining numbers of flying insect prey

# Oregon Forestsnail

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*(Endangered)*

The Oregon Forestsnail is a large snail with a spiraled shell that grows up to 35 mm (~1.5") across. Its shell is pale brown, amber and straw-yellow and opens with a white, flared, outer rim.

It is found in the lower Fraser valley in southwestern BC.



Photo by Laurel Parshall

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## HABITAT

- Older mixed-wood and deciduous lowland forests, typically with Bigleaf Maples, Black Cottonwood, and dense shrubs
- Stinging Nettle plants, and fallen branches and leaves

## THREATS TO SURVIVAL OR RECOVERY

- Development, forestry, and agricultural practices that cause habitat loss or damage
- Brush-burning, trampling, and pesticides
- Non-native predators that compete for food and shelter (e.g., Giant Garden Slug and Chocolate Arion slug)

# Oregon Spotted Frog

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*(Endangered)*

The Oregon Spotted Frog grows to ~6 cm (~2.5") long, not including its legs. It is red-brown, with raised red to black spots on its head and back. It has golden eyes set at the top of its head. It has a light brown to orange ridge on each side. Adults have dark spots on their bellies.



Photo by Teal Waterstrat

It is found in the lower Fraser valley in southwestern BC.

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## HABITAT

- Wetlands, ponds, and slow-moving waterways in forests or open areas
- Warm, shallow, and muddy water with aquatic plants

## THREATS TO SURVIVAL OR RECOVERY

- Farming, mining, and logging practices that cause habitat loss or damage
- Invasive, non-native species like Reed Canary Grass (which take away habitat) and Bullfrogs (which eat Oregon Spotted Frogs)
- A fungal disease spreading in frogs and salamanders

# Pacific Water Shrew

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*(Endangered)*

The Pacific Water Shrew is the largest shrew in B.C. It grows to ~15 cm (6") long; half of which is its tail. Its fur is dark brown or black. It has stiff hairs on the edges of its hind feet to help it swim and move short distances across the surface of the water.



Photo by Chris Lee

It is found in the lower Fraser valley region of southwestern BC.

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## HABITAT

- Old to young dense, wet forests
- Streams and wetlands
- Coarse, downed wood

## THREATS TO SURVIVAL OR RECOVERY

- Development, forestry, and agricultural practices that cause habitat loss or damage

# Pallid Bat

*(Threatened)*

The Pallid Bat is ~11-13 cm (~4.5-5") long. It has grey wings and light brown or cream coloured fur.

It is found in a limited area of south-central BC.



© Barry Mansell

## HABITAT

- Low elevation valley bottoms
- Open, lightly-vegetated areas in deserts, sagebrush, dry grasslands and cultivated fields
- Coniferous forests (cone-barring trees)
- Crevices and rock faces

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that cause habitat loss
- Pesticides which contaminate insect prey and poison these bats

# Peregrine Falcon

*anatum/tundrius/pealei* subspecies

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## (Special Concern)

The Peregrine Falcon is about the size of a crow. Adults have a dark “hooded” head, blue-grey back, and a white to grey front with dark spots and stripes.

The *anatum* subspecies breeds on BC’s south coast and in the lower Fraser valley.

The *pealei* subspecies breeds on the central coast, Haida Gwaii, Triangle Island, and parts of Vancouver Island. The *tundrius* subspecies breeds in the far north and passes through BC during migration.

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Subspecies: *anatum* © Gordon Court

## HABITAT

- Open areas
- Natural and human-made perches (e.g. cliffs and tall buildings)

## THREATS TO SURVIVAL OR RECOVERY

- Pesticides used that can poison this species
- Residential and commercial development that cause habitat loss or damage
- Loss of prey
- Removal of juvenile falcons from the wild for falconry

# Phantom Orchid

*(Threatened)*

The Phantom Orchid has an above ground stem that can grow up to 65 cm (~25") high, topped with clusters of up to 20 white flowers. It also has a larger underground stem with thick, branching roots.

It is found in a few locations in southwestern B.C.



"Phantom Orchids" by Ben

## HABITAT

- Coniferous or mixed mature forests
- Older second growth forests
- Grazed areas with Bigleaf Maple
- Trees with below-ground fungal networks

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development, and forestry practices that cause habitat loss or damage
- Some recreational activities (e.g. hiking, mountain-biking, off-roading)



# Porslid's Bryum

*(Threatened)*

Porsild's Bryum is a small moss that grows in tight clusters up to 1 cm (~0.5") high. It is bright green on top with red-brown branches below.

It is found on Mt. Socrates in Northern BC.



© René Belland

## HABITAT

- Western mountain ranges
- On cliffs and in cracks that are damp in the spring and dry in the winter

## THREATS TO SURVIVAL OR RECOVERY

- Some recreational activities (e.g. hiking, mountain-biking, off-roading)
- Urban and agricultural development that cause habitat loss

# Rocky Mountain Tailed Frog

*(Endangered)*

The Rocky Mountain Tailed Frog grows to ~2-5 cm (1-2") long. It can vary in colour (e.g., tan, brown, olive green). Pale coloured individuals have dark blotches. Males have a short cone-shaped organ that looks like a tail.



© Purnima Govindarajulu

It is found in the Kootenay region of southeastern BC.

## HABITAT

- Forested areas
- Small, cold, clear, mountain streams with rocky bottoms

## THREATS TO SURVIVAL OR RECOVERY

- Fire management, forestry, and mining practices that cause habitat loss or damage
- Some recreational activities (e.g. hiking, mountain-biking, off-roading)

# Red Knot

*roselaari type*

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(Threatened)

The Red Knot grows to ~23-25 cm (9-10") long. In the breeding season, its face and front feathers are rich brown-red and its back is dark brown or black mixed with red and grey. In the non-breeding season, its back is plain grey and it has dull grey or brown streaks on its white front.



"Red Knot" by Aaron Maizlish

The Red Knot *roselaari type* migrates along B.C.'s Pacific coast. The Fraser River Estuary in B.C.'s Lower Mainland is a Red Knot migration stopover.

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## HABITAT

- Coastal areas with broad intertidal flats

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development that cause habitat loss or damage
- Introduced and invasive species
- Energy development and production that causes habitat loss or damage

# Rusty Blackbird

## *(Special Concern)*

The Rusty Blackbird is slightly smaller than an American Robin. In winter, its feathers are a rusty hue. In the breeding season, the male's feathers are completely black and the female's are grey-brown.

It is found throughout most of BC's interior.



© Neal Foord

## HABITAT

- Boreal forests
- Wetland shores (e.g., edges of slow-moving streams, peat bogs, marshes, swamps)

## THREATS TO SURVIVAL OR RECOVERY

- Energy development and production , land conversion, and agricultural and forestry practices and that cause habitat and prey loss

# Sage Thrasher

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*(Endangered)*

The Sage Thrasher is slightly smaller than an American Robin. It has a short bill and its feathers are grey-brown.

This bird is found in south-central BC.



© Peter LaTourrette 2001

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## HABITAT

- Areas with sagebrush, antelope-brush, and other shrubs

## THREATS TO SURVIVAL OR RECOVERY

- Residential, commercial, or agricultural development that cause habitat loss or damage

# Scarlet Ammannia

*(Endangered)*

Scarlet Ammannia grows up to 1m (~39") tall. It has long leaves and one to three small lavender coloured flowers. It is often under water from July to September.

It is found in south central BC.



© Emmet J. Judzewicz

## HABITAT

- Damp, muddy, or sandy shorelines

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development that cause habitat loss or damage
- Lake level management that causes habitat damage

# Seaside Bone Lichen

*(Threatened)*

The Seaside Bone Lichen's main body is ~5-8 cm (2- 3") across. It resembles a small bush with fine pale grey branches. It often grows on the branches of conifers; particularly Shore Pines.

It is found on the southwestern end of Vancouver Island.



Photo by Bruce McCune

## HABITAT

- Coastal Western Hemlock and Coastal Douglas Fir biogeoclimatic zones within 100 m (328') of the ocean
- Rocky ledges exposed to wind and ocean spray

## THREATS TO SURVIVAL OR RECOVERY

- Forestry practices that cause habitat loss or damage
- Climate change causing increases in the strength and number of winter storms

# Sharp-tailed Snake

(Endangered)

The Sharp-tailed snake grows to ~20.5-45.5 cm (8-18") long and roughly the thickness of a pencil. Its upper surface is red-brown, yellow-brown, or grey. Its underside is light with black bars. Its name comes from the large scale or "scute" at the tip of the tail.



"Sharp-tailed Snake (*Contia tenuis*)" by Marshal Hedin

This snake is found in a few locations on southern Vancouver Island, the southern Gulf Islands and near Pemberton, BC.

## HABITAT

- Coastal Douglas Fir biogeoclimatic zone
- Forest edges and open stands of Douglas Fir and Arbutus trees
- South-facing, rocky slopes

## THREATS TO SURVIVAL OR RECOVERY

- Introduced and invasive species (e.g., Scotch Broom)
- Residential and commercial development that cause habitat loss or damage
- Vehicles which hit or run-over this species



# Short-Eared Owl

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## *(Special Concern)*

The Short-Eared Owl grows to ~34-42 cm (13.4-16.6") long. Adults' feathers are streaked with a mix of beige, brown, and black. It gets its name from the small feather tufts on its head that look like ears. It is found throughout most of British Columbia.



"Short-eared Owl - *Asio flammeus*" by Tarique Sani

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## HABITAT

- Open areas with low vegetation, such as grasslands, marshes, meadows and river valleys

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development that cause habitat loss or damage
- Agricultural practices that cause habitat loss or damage

# Showy Phlox

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*(Threatened)*

The Showy Phlox grows to ~15-40 cm (~6-18") tall. It has narrow, green leaves and a hairy stem. Its flowers range from pink to white in colour. It is found in south-central BC.



© Jim Riley

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## HABITAT

- Grassland, shrubland, and open forest

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development that cause habitat loss or damage
- Use of broad-spectrum herbicides

# Small-flowered Lipocarpha

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*(Endangered)*

This small plant grows in clumps with curved stems from 1-10 cm (~0.25-4") long. Its flowers are made of multiple brown spikes.

It is found in south-central BC.



© T. McIntosh, 2007

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## HABITAT

- Wet, sandy, exposed shorelines in areas prone to flooding

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development that cause habitat loss or damage
- Water level management that causes habitat damage
- Recreational activities along shorelines where this plant grows
- Introduced and invasive species

# Smooth Goosefoot

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*(Threatened)*

The Smooth Goosefoot is a plant that grows to between 20-80 cm (~8-31") tall. It has long, narrow, leaves and clusters of small green-red flowers.

It is found in a small area of southeastern BC.



© David Schmoller

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## HABITAT

- Unstable sand areas (e.g., Moving sand dunes)
- Bare or recently disturbed sand plains

## THREATS TO SURVIVAL OR RECOVERY

- Growth of invasive species and other plants that cause sand dunes to stabilize
- Agricultural practices and recreational activities (e.g., horseback riding, ATVing, hiking) that damage individual plants

# Sonora Skipper

## *(Special Concern)*

The Sonora Skipper is a small butterfly with a wingspan of 25-30 mm (~1"). The upper side of its wings are rusty orange and brown with a dark border.

It is found in a small area of BC's southern mainland.



*Polites sonora* (Sonoran Skipper) by S. Rae

## HABITAT

- Damp, grassy openings in mountainside forests
- Damp logged areas, agricultural meadows, and grassy roadsides

## THREATS TO SURVIVAL OR RECOVERY

- Agricultural practices that cause habitat loss and damage
- New tree growth that causes the loss of open areas
- Residential and commercial development that cause habitat loss or damage

# Spalding's Champion

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*(Endangered)*

Spalding's Champion is a perennial herb that grows to ~20-60 cm (~8-24") tall. It is light green with small, sticky hairs. Its small flowers are green-white.

It is found in a limited area of southeastern BC.



© Kella Sadler

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## HABITAT

- The bottom of Rocky Mountain valleys at elevations of 580-1220 m (1903-4003')

## THREATS TO SURVIVAL OR RECOVERY

- Introduction of non-native plants, and fire suppression that causes habitat loss
- Development that causes habitat loss or damage
- Droughts which stress these plants

# Spotted Bat

## *(Special Concern)*

The Spotted Bat has a wingspan of ~35 cm (~14"). It has very large ears and black fur with large, white spots on its back.

This bat is found in south-central BC.



© M. Brock Fenton

## HABITAT

- Ponderosa Pine-bunchgrass ecosystems
- Waterways, cliffs, steep hillsides, and rock crevices

## THREATS TO SURVIVAL OR RECOVERY

- Use of pesticides that cause declining numbers of flying insect prey
- Human disturbance

# Streambank Lupine

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*(Endangered)*

The Streambank Lupine ranges in height from 0.3-1 m (~1-3'). It has light, blue-purple pea-like flowers.

It is found on the southwestern mainland of BC.



© Gordon Leppig & Andrea J. Pickart

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## HABITAT

- Open sandy or gravelly stream banks with little leaf cover
- Areas with seasonal flooding

## THREATS TO SURVIVAL OR RECOVERY

- Agricultural development and forestry practices that cause habitat loss or damage
- Use of herbicides that can kill this species
- Introduced and invasive species



# Tall Bugbane

*(Endangered)*

Tall Bugbane stands 1-2 m (~3-6') tall. It has small, white flowers grouped in bunches of 50-900. It is typically found with Douglas-fir, Bigleaf Maple, Devil's Club, Sword and Lady Ferns, and Vanilla Leaf.

This plant is found in the Cultus Lake–Chilliwack River area of southwestern BC.



© Dianne Fristrom

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## HABITAT

- Older forests with a mix of trees
- Damp areas and edges of water courses

## THREATS TO SURVIVAL OR RECOVERY

- Some recreational activities (e.g., hiking, mountain-biking, off-roading)
- Forestry practices, industrial activities, and residential and commercial development that cause habitat loss or damage
- Introduced and invasive species

# Threaded Vertigo

## *(Special Concern)*

The Threaded Vertigo has a cylindrical shell that is ~2.4-3.3 mm (~1/10") long. The shell is marked with fine parallel growth lines. It is often found on ferns and shrubs.

It is found on the Sunshine Coast, southern Vancouver Island, and in the southern Gulf Islands of B.C.



Photo by Robert Forsyth

## HABITAT

- Coniferous or mixed-wood forests, often with Bigleaf Maple trees
- Elevations below 200m (650')

## THREATS TO SURVIVAL OR RECOVERY

- Some recreational activities (e.g., hiking, mountain-biking, off-roading)
- Introduced and invasive species

# Toothcup

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*(Endangered)*

Toothcup grows to 10-40 cm (4-16") tall. It has small flowers which are white-pink in colour. It is often found under water.

It is found in south-central BC.



© Larry Allain

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## HABITAT

- Moist, muddy or sandy shorelines

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development that cause habitat loss or damage
- Lake level management that causes habitat damage

# Townsend's Mole

*(Endangered)*

The Townsend's Mole is ~20 cm (~9") long from nose to tail. Its short fur is dark grey to dark brown. It has broad, shovel-like front feet with long claws that it uses for tunneling. It builds large molehills and spends most of its life underground.

It is found in a small area of BC's lower Fraser Valley.



Photo by Jerry Kirkhart

## HABITAT

- Pastures, farmland, and lawns
- Loose soils

## THREATS TO SURVIVAL OR RECOVERY

- Agricultural practices that cause habitat and prey loss
- Use of pesticides that cause declining numbers of prey (e.g., earthworms)
- Persecution by humans who view moles as pests
- Lake level management that causes habitat damage

# Vancouver Island Beggarticks

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## *(Special Concern)*

Vancouver Island Beggarticks grow to ~50-100 cm (20-40") tall.

It has yellow flowers and can be bushy with many branches and stems. It is regularly found in areas used by ducks (may be due to soil conditions).

It is found in coastal areas of Southern B.C.



"*Bidens amplissima* (Vancouver Island beggarticks)"  
by Tab Tannery

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## HABITAT

- Edges of wetlands, estuaries, ditches, and low areas in fields

## THREATS TO SURVIVAL OR RECOVERY

- Agricultural, residential and commercial development that cause habitat loss or damage
- Introduced and invasive species

# Vancouver Island Marmot

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*(Endangered)*

The Vancouver Island Marmot is 67-72 cm (~26-28") long from its nose to the tip of its tail. It has chocolate brown fur with contrasting patches of white fur on the nose, belly, and top of the head.

It is found only on Vancouver Island.



© Marmot Recovery Foundation

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## HABITAT

- Subalpine meadows usually between 900 m and 1500 m (~2950' to 4920') above sea level
- Natural and manmade habitats, such as logged areas and ski-runs

## THREATS TO SURVIVAL OR RECOVERY

- New tree growth that causes the loss of open areas
- Loss of cover that increases exposure to predators
- Climate change, which causes changes in glacier or avalanche patterns

# Victoria's Owl-clover

*(Endangered)*

Victoria's Owl-clover grows to between 2-20 cm (~1-8") tall. Its leaves are red-purple in colour.

It is found on southern Vancouver Island and small islands nearby.



"Castilleja victoriae (Victoria owl-clover)" by Tab Tannery

## HABITAT

- Approximately 50 m (~164') of the shoreline at 1 - 5 m (~3.3 - 16.4') above sea level
- Open areas, often in Garry Oak Ecosystems
- Edges of winter and spring fed water bodies (e.g., vernal pools and seeps)

## THREATS TO SURVIVAL OR RECOVERY

- Recreational activities that trample this plant
- Residential and commercial development that cause habitat loss or damage
- Introduced and invasive species
- Climate change causing increases in the strength and number of winter storms

# Wallis' Dark Saltflat Tiger Beetle

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*(Endangered)*

Wallis' Dark Saltflat Tiger Beetles are ~1.2 cm (.05") long. They have dark brown-black wings with light blotches.

They are found in BC's Okanagan Valley.



© Jennifer Heron

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## HABITAT

- Dry open areas within pine forests and sagebrush

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that cause habitat loss or damage
- Herbicides or insecticides that can poison this species



# Warty Jumping-slug

## *(Special Concern)*

The Warty Jumping-slug grows up to 20 mm (~.075) long. It has a hump on its back with a yellow shell and a little horn on the tip of its tail. It gets its name from the small bumps on its back and because it jumps away when threatened.



*Hemphillia glandulosa* (Warty Jumping-slug) by Kristiina Ovaska

It is found on southern Vancouver Island.

## HABITAT

- A wide range of forest types (e.g., old-growth, Western Red Cedar, Western Hemlock, second-growth mixed wood)
- Very damp forest floors and riparian areas with decaying logs, fallen leaves, moss, and shade from the forest canopy

## THREATS TO SURVIVAL OR RECOVERY

- forestry practices that cause habitat loss or damage
- Introduced and invasive species

# Western Harvest Mouse

*megalotis* subspecies

*(Special Concern)*

The Western Harvest Mouse is on average 13.6 cm (5.5") long, about half of which is its tail. This mouse's fur is mostly brown but is lighter on its belly and feet, and it has a dark stripe that runs along its back.

It is found in south-central BC.



© Robin Bloom

## HABITAT

- Areas with thick vegetation such as shrubs or tall grasses

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that cause habitat loss or damage
- Domestic and feral cats that prey on mice
- Rodenticide that can poison this species

# Western Painted Turtle

## Pacific Coast Population

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*(Endangered)*

The Western Painted Turtle can grow up to ~25 cm (10") long.

It has a smooth dark upper shell, and a bright red or orange underside covered by a large distinctive markings.

The Western Painted Turtle Pacific Coast Population is found in a few locations in south-western BC.



"The under shell (plastron) of a western painted turtle" by Matt Young

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## HABITAT

- Shallow ponds, lakes, marshes, and slow-moving streams
- Loose, warm, well-drained soils up to ~150 m (~500') from the water's edge

## THREATS TO SURVIVAL OR RECOVERY

- Development that causes habitat loss or damage
- Vehicles which can hit or run-over this species
- Parasite infection from domestic turtles released into the wild

# Western Painted Turtle

## Intermountain - Rocky Mountain population

### *(Special Concern)*

The Western Painted Turtle can grow up to ~25 cm (10") long. It has a smooth dark upper shell, and a bright red or orange underside covered by a large distinctive markings.

The Western Painted Turtle Intermountain -Rocky Mountain population is found in BC's southern interior.



© Pamela Zevit

## HABITAT

- Shallow ponds, lakes, marshes, and slow-moving streams
- Loose, warm, well-drained soils up to ~150 m (~500') from the water's edge

## THREATS TO SURVIVAL OR RECOVERY

- Development that causes habitat loss or damage
- Vehicles which can hit or run-over this species
- Racoons that prey on eggs and young turtles

# Western Rattlesnake

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*(Threatened)*

Adult Western Rattlesnakes average 85-100cm (33-40 inches) long. This snake is brown, olive, or grey in colour with dark blotches on its back. It has a triangular head, thick body and a “rattle” on the end of its tail.



©Douglas B. Adama

Western Rattlesnake is found in the Thompson-Okanagan dry belt and in the southern interior of BC.

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## HABITAT

- Ponderosa pine forests, shrub-steppe, grasslands, and riparian areas
- Rocky areas that receive a lot of sunlight

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that cause habitat loss or damage
- Vehicles which can hit or run-over this species
- Human destruction of dens

# Western Screech-Owl

*kennicottii* subspecies

*(Threatened)*

The Western Screech-Owl is 19-25.5 cm (7.5-10") long and weighs 120-305g (4-11oz). It is mostly a mottled grey-brown colour, but its front is lighter and has fine dark streaks on a white breast.

The Western Screech-Owl *kennicottii* subspecies is found along the coast of BC, including Vancouver Island.



"Western Screech Owl (*Megascops kennicottii*)"  
by Randy R. Magnuson

## HABITAT

- Low elevation forest and woodland
- Mixed deciduous-coniferous forests, usually near a stream
- Tree cavities

## THREATS TO SURVIVAL OR RECOVERY

- Urban development and agricultural and forestry practices that cause habitat loss or damage
- Barred owls that prey on this species

# Western Screech Owl

*macfarlanei* subspecies

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(Endangered)

The Western Screech-Owl is 19-25.5 cm (7.5-10") long and weighs 120-305g (4-11 oz). It is mostly grey-brown. It has a light coloured breast with fine, dark streaks.

The Western Screech-Owl *macfarlanei* subspecies is found in central and eastern BC.



© Stephen R. Cannings

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## HABITAT

- Lower elevation forested areas, usually close to water
- Tree cavities

## THREATS TO SURVIVAL OR RECOVERY

- Urban development and agricultural and forestry practices that cause habitat loss or damage
- Energy (e.g., hydroelectric) development and production that causes habitat loss or damage
- Vehicles which can hit or run-over this species

# Western Skink

## *(Special Concern)*

The Western Skink can grow to 8.3 cm (~3.3") long. This lizard has a brown back with four light stripes running from its head to its tail. Juveniles have a bright blue tail that fades as they age.



© Erik Enderson

The Western Skink is found in the extreme southern portion of mainland BC.

## HABITAT

- Woodlands, grasslands, forested areas, and dry hillsides with rocks, decaying logs, fallen leaves, and other ground cover

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that cause habitat loss or damage
- Humans taking these lizards for pets



# Western Tiger Salamander

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*(Endangered)*

The Western Tiger Salamander is ~20-30 cm (8-12") long. It is usually green or yellow with black stripes like a tiger.

The Western Tiger Salamander is found in south-central BC.



© 2004 Henk Wallays

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## HABITAT

- Pools or ponds with few or no fish
- Dry open areas with loose soils

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development that cause habitat loss or damage

# Western Toad

## *(Special Concern)*

The Western Toad can grow to 12.5 cm (~5") long, although males are slightly smaller than females. It has bumpy skin that varies in colour from olive-green, to red-brown, to almost black. Its belly is usually pale with black splotches and it may or may not have a light stripe along its back,



Photo by J. N. Stuart

The Western Toad is found throughout most of BC.

## HABITAT

- Forests and forest openings below the frost line, shrub and marsh areas
- Ponds and shallow lake areas, usually with a sandy or silty bottom

## THREATS TO SURVIVAL OR RECOVERY

- Residential and commercial development that cause habitat loss or damage
- Vehicles which can hit or run-over this species
- Fungal disease that spreads in frog and salamander species

# Whitebark Pine

*(Endangered)*

The Whitebark Pine is typically 5-20 m (16-65') tall. It is a five-needled coniferous tree.

It is found in the mountains of mainland BC.



©Michael T. Miller

## HABITAT

- High elevation areas (e.g., upper montane, subalpine, treeline)
- Rocky ridges and open areas (e.g., disturbed by fire, avalanche)

## THREATS TO SURVIVAL OR RECOVERY

- White Pine Blister Rust (a fungal infection)
- Mountain Pine Beetles (a parasite infection)
- Fire and fire suppression
- Climate change causing increases in the strength and number of storms

# Yellow-bellied Racer

## *(Special Concern)*

The Yellow-bellied Racer is typically less than 1m (~39") long, but can grow to as much as 180cm (~6') long. It has a smooth body with a green-yellow back and a yellow belly.

This snake is found in BC's Okanagan, Similkameen, Nicola and Thompson watersheds.



© Karl W. Larsen

## HABITAT

- Open habitats (e.g., prairies, agricultural areas, swamps, sagebrush thickets)
- Open areas under trees and cliffs or steep hillsides

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that cause habitat loss or damage
- Pesticides that can poison this species
- Vehicles which can hit or run-over this species

# Yellow-breasted Chat

*(Endangered)*

The Yellow-Breasted Chat grows to ~18 cm (~7") long. It has a bright yellow throat and breast. Its back, wings and tail are an olive green colour.

It is found in south-central and south-eastern BC.



© Mike Danzenbaker

## HABITAT

- Thickets of wild rose and willow along streams and rivers
- Thickets around wood edges, riparian areas, and in overgrown clearings

## THREATS TO SURVIVAL OR RECOVERY

- Urban and agricultural development that cause habitat loss or damage

# Wood Bison

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*(Endangered)*

Wood Bison are ~3.5 m (11.5') long, 1.8 m (~6') high, and can weigh 1000 kg (2205 lbs.); although females are somewhat smaller. They have dark brown fur, long shaggy hair, and a large hump on their shoulders.

Wood Bison are found in northeastern BC.



Courtesy of U.S. Fish & Wildlife Services

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## HABITAT

- Open boreal and aspen forests
- Large wet meadows

## THREATS TO SURVIVAL OR RECOVERY

- Urban, agricultural, forestry, and petroleum resource development that cause habitat loss or damage
- Disease (anthrax, brucellosis, and tuberculosis)
- Cross-breeding with Plains Bison

# Woodland Caribou

## Southern Mountain

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*(Endangered)*

Caribou are ancient, medium-sized members of the deer family. Both male and female caribou have antlers during part of the year. Adults' coats are mostly dark brown. Its neck, mane, shoulder stripe, underbelly, underside of the tail, and the patch by each hoof is a creamy white.



© Lee Harding

The Southern Mountain population of Woodland Caribou are found in roughly the southern half of BC's interior.

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## HABITAT

- Large ranges of relatively undisturbed, interconnected habitat, with diverse topography and terrain that includes: marshes, bogs, lakes, and rivers
- Large patches of mature and old forests with a lot of lichens

## THREATS TO SURVIVAL OR RECOVERY

- Development, industrial activities, and recreational activities that causes habitat loss or damage
- Predation from wolves, bears, wolverines, and cougars
- Avalanches, landslides, and climate change causing increases in severe weather changes

# Species at Risk Act and Private Land

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## Did you know...

- The Species at Risk Act (SARA) applies on all lands and waters in Canada
- How it applies depends on land tenure
- Canada and British Columbia work together through a formal Agreement on Species at Risk
- Provincial and local governments can protect species at risk and their critical habitat through existing tools (e.g., Bylaws, zoning, permitting, Water Sustainability Act, Wildlife Act)
- Land owners and managers play an important role through the stewardship actions they choose to take

## What is critical habitat?

- The habitat the species needs to recover or survive, as identified in a final recovery strategy or action plan
- Critical habitat is identified using the best available information

### It includes:

- The area within which critical habitat is found
- The environmental features the species needs (e.g., types of plants, water bodies)

## What does it mean to have critical habitat on your land?

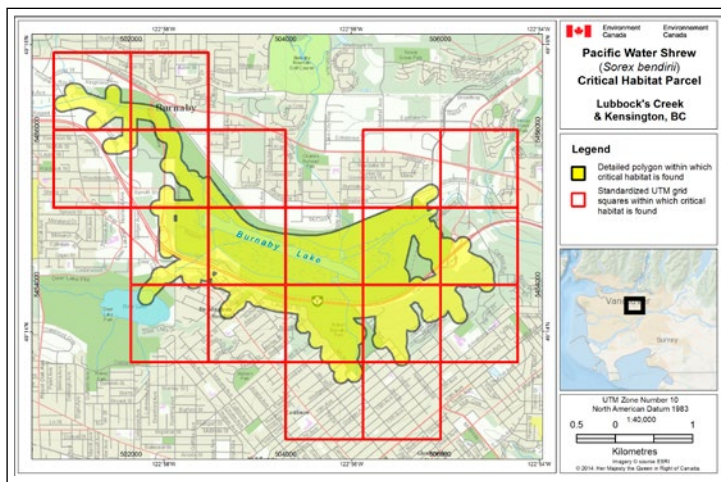
- It may mean that your current land use is compatible with the needs of the species. Thank you!
- If you plan to change how you use your land, you can get advice from species experts in order to avoid harming species or their habitat



## **How is critical habitat protected?**

- Protection of critical habitat means avoiding activities that could destroy it
  - Critical habitat is 'destroyed' if the habitat is not available to the species when it needs it
  - Destruction can result from a single action or multiple actions over time (cumulative effects)
- The existing laws of the provinces and territories may protect critical habitat (Note: If new laws or regulations are considered, you will be consulted before anything changes)
- Stewardship actions, or best management practices, can also help species survive and recover
- SARA's legislative powers are only considered if the above measures have not protected the species and its critical habitat
- The goal is to meet the conservation needs of the species while minimizing impacts and inconvenience to landowners

## Example of a Critical Habitat Map



**Figure A.5.** Area within which critical habitat occurs for Pacific Water Shrew at River Road and 80th Street (Delta, B.C.). Critical habitat is represented by the shaded yellow polygons where the criteria set out in Section 5.1. are met. The 1 km x 1 km UTM grid overlay shown on this figure is a standardized national grid system that highlights the general geographic area containing critical habitat.

## What support is available to help landowner protect critical habitat?

- Tax incentives for “EcoGifts”
- Funding programs (e.g., Habitat Stewardship Fund)
- Conservation Agreements
- Information to assist in land use planning
- Visit: [www.sararegistry.gc.ca](http://www.sararegistry.gc.ca) to learn more

**To learn more about SARA and species at risk,  
please visit: [www.sararegistry.gc.ca](http://www.sararegistry.gc.ca)**



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