Terrestrial Species at Risk
Pacific Region Species Overview

Species At Risk Act Consultation, Cooperation, and Accommodation Workshop

In Partnership with the Centre for Indigenous Environmental Resources (CIER)

Undiné Thompson, Sr. Consultation Biologist

Canadian Wildlife Service - Environment and Climate Change Canada (CWS-ECCC)

November 9th and 18th, 2021

Environment and Climate Change Canada | Environnement et Changement climatique Canada

Thank you | Спасибо

I am grateful to speak to you today from the traditional territory of Lekwungen/Songhees, Te'mexw Treaty Association, and WSÁNEĆ Peoples.

MY BACKGROUND

- **Non-Indigenous** – European and minority immigrant family
- **Born and raised in BC** – grew up on the Fraser River Delta, Vancouver Island, Gulf Islands/Inside Passage, and the south Okanagan
- Studied and worked in BC archaeology and Indigenous cultural studies
- **Quebec and Ontario** – moved to Montreal for graduate studies - lived in central Canada for 5 years
- **ECCC** – started working for the Canadian Wildlife Service in 2013 in Delta, BC
- Currently living in **Victoria**, BC

GOALS

- Provide a high-level overview of the species that undergoing listing or recovery planning
- Help Indigenous communities and organizations identify:
  - relevant Species at Risk that they would be interested in supporting the recovery of, and
  - the types of activities they might want to include in a project
- Work together to increase Indigenous representation in federal recovery planning processes and conserve Species at Risk

SPECIES THAT CWS-ECCC WILL BE CONSULTING ON LISTING UNDER SARA

Species	COSEWIC status	SARA status
Barn Swallow	Special Concern	Threatened
Canada Warbler	Special Concern	Threatened
Grappletail	Special Concern	No status
Lesser Yellowlegs	Threatened	No status
Seaside Centipede Lichen	Threatened	Endangered
Short-eared Owl	Threatened	Special Concern

PRIORITY SPECIES FILES

Species	Scientific Name	SARA Status	Recovery Document
American Badger jeffersonii ssp.	*Taxidea taxus jeffersonii*	Endangered	RS
Bank Swallow	*Riparia riparia*	Threatened	RS
Grizzly Bear (Western Pop)	*Ursus arctos horribilis*	Special Concern	MP
Marbled Murrelet	*Brachyramphus marmoratus*	Threatened	Amended RS - Marine Critical Habitat
Oregon Forestsnail	*Allogona townsendiana*	Endangered	Amended RS - updated Critical Habitat
Southern Mountain Caribou	*Rangifer tarandus caribou*	Threatened	Amended RS - updated Critical Habitat
Spotted owl caurina subspecies	*Strix occidentalis caurina*	Endangered	Amended RS - updated Critical Habitat

*RS – Recovery Strategy
MP – Management Plan

BIRDS

Species	Scientific Name	SARA Status	Recovery Document
Barn Owl (Western Population)	*Tyto alba*	Threatened	RS
Barn Swallow	*Hirundo rustica*	Threatened - listing consultation upcoming (Special Concern)	RS (MP)
Black Swift	*Cypseloides niger*	Endangered	RS
Bobolink	*Dolichonyx oryzivorus*	Threatened	RS
Buff-breasted Sandpiper	*Calidris subruficollis*	Special Concern	MP
Canada Warbler	*Cardellina canadensis*	Threatened - listing consultation upcoming (Special Concern)	RS (MP)
Cassin's Auklet	*Ptychoramphus aleuticus*	Special Concern	MP
Evening Grosbeak	*Coccothraustes vespertinus*	Special Concern	MP
Horned grebe	*Podiceps auritus*	Special Concern	MP
Lesser Yellow Legs	*Tringa flavipes*	Unlisted – listing consultation upcoming (Threatened)	N/A (RS)
Short-eared Owl	*Asio flammeus*	Special Concern – listing consultation upcoming (Threatened)	MP (RS)
Western Grebe	*Aechmophorus occidentalis*	Special Concern	MP
Western Screech-Owl (*kennicottii* subspecies)	*Megascops kennicottii kennicottii*	Threatened	RS
Western Screech-Owl (*macfarlanei* subspecies)	*Megascops kennicottii macfarlanei*	Threatened	RS

BEES

Species	Scientific Name	SARA Status	Recovery Document
Gypsy Cuckoo Bumblebee	*Bombus bohemicus*	Endangered	RS
Western Bumble Bee (*mckayi* subspecies)	*Bombus occidentalis mckayi*	Special Concern	MP
Western Bumble Bee (*occidentalis* subspecies)	*Bombus occidentalis occidentalis*	Threatened – pending listing decision	RS
Yellow Banded Bumble Bee	*Bombus terricola*	Special Concern	MP

Female Gypsy Cuckoo Bumblebee by Sheila Colla

Female Western Bumble Bee *(occidentalis)* by Sheila Colla

Female Yellow Banded Bumble Bee by Sheila Colla

INSECTS (THAT AREN'T BEES)

Species	Scientific Name	SARA Status	Recovery Document
Audouin's Night Stalking Tiger Beetle	*Omus audouini*	Threatened	RS
Grappletail	*Octogomphus specularis*	Unlisted - - listing consultation upcoming (Special Concern)	n/a (MP)
Monarch	*Danaus plexippus*	Special Concern – pending GIC decision (Threatened)	MP (RS)
Nuttall's Sheep Moth	*Hemileuca nuttalli*	Unlisted	RS
Okanagan Efferia	*Efferia okanagana*	Endangered	RS
Olive clubtail	*Stylurus olivaceus*	Endangered	RS
Oregon Branded Skipper	*Hesperia colorado oregonia*	Unlisted – pending GIC decision (Endangered)	n/a (RS)
Vivid Dancer	*Argia vivida*	Special Concern	MP

HERPTILES (REPTILES & AMPHIBIANS)

Species	Scientific Name	SARA Status	Recovery Document
Wandering Salamander	*Aneides vagrans*	Special Concern	MP
Western Yellow-bellied Racer	*Coluber constrictor mormon*	Special Concern (pending decision to list as Threatened)	MP (RS)

Wandering Salamander from Vancouver Island by Kristiina Ovaska

Western Yellow-bellied Racer
Photo by Jared Hobbs

OTHER MAMMALS

Species	Scientific Name	SARA Status	Recovery Document
Collared pika	*Ochotona collaris*	Special Concern	MP
Wolverine	*Gulo gulo*	Special Concern	MP

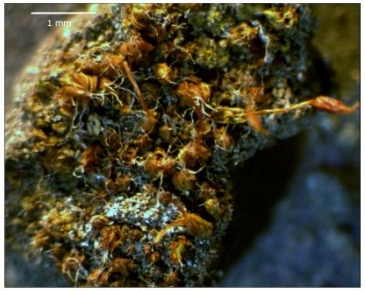
Collared Pika - John Nagy

Wolverine – Lee Mennell

MOSS, LICHENS, AND A SLUG

Species	Scientific Name	SARA Status	Recovery Document
Crumpled tarpaper lichen	*Collema coniophilum*	Threatened	RS
Haida Gwaii Slug	*Staala gwaii*	Special Concern	MP
Roells Brotherella	*Brotherella roellii*	Endangered	RS
Tiny Tassel	*Crossidium seriatum*	Special Concern	MP
Seaside Centipede Lichen	*Heterodermia sitchensis*	Endangered – under consultation for listing as Threatened	RS
Western Waterfan	*Peltigera gowardii*	Special Concern	MP

Crumpled Tarpaper Lichen by Tim Wheeler



Tiny Tassel by Lyn Baldwin

Haida Gwaii Slug, *Staala gwaii*

PRIORITY SPECIES FILES (More details)

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Spotted owl caurina subspecies	*Strix occidentalis caurina*	Endangered	Amended RS - updated Critical Habitat

AMERICAN BADGER *Jeffersonii* subspecies

(Endangered)

The American Badger is ~75 cm in length. 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.

The *jeffersonii* subspecies is found in the dry interior of south-central and southeastern BC.

© Melissa Hafting

Habitat

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

Threats

- Habitat loss or damage caused by development and fire management practices
- Being hit or run over by vehicles
- Trapping and persecution by humans
- Loss of prey

AMERICAN BADGER UPDATE

- Critical habitat has been partially identified and described.
  It includes:
  - **Safe movement critical habitat**
    - Allows for movement to areas for denning, foraging, mating and other essential activities
  - **Core critical habitat**
    - Must have the biophysical attributes necessary for activities such as denning and foraging – primarily based upon soil type and level of compaction

AMERICAN BADGER UPDATE

- Consultation on Recovery Strategy
  - Federal Recovery Strategy (adoption of BC recovery plan, with addition of critical habitat)
  - Consultation/Engagement: moving into official public comment period
  - Imminent Posting
    - Proposed Federal Recovery Strategy will be posted on the Species at Risk Public Registry for a 90-day comment period

BANK SWALLOW

(Threatened)

The Bank Swallow is a small songbird ~12 cm in length. It has brown upperparts, white underparts and a dark breast band. In flight, it has quick erratic wing beats, and buzzy, chattering vocalizations.

The Bank Swallow is found across BC.

Courtesy of U.S. Fish & Wildlife Services

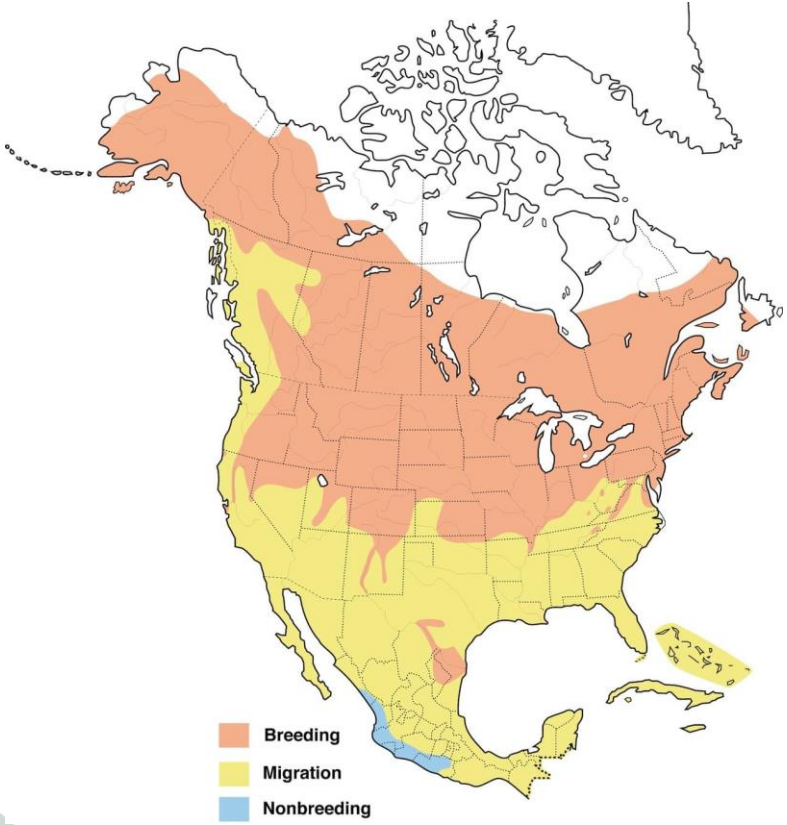
Habitat

- Sites with vertical banks, including riverbanks, lakes and ocean bluffs, gravel quarries, road cuts, and stock piles of soil
- Open areas such as grasslands and meadows, and large wetlands

Threats

- Loss of nesting and hunting habitats caused by erosion and flood control, gravel extraction, and conversion of pastures to crops and forest
- Large scale loss of insects

BANK SWALLOW RANGE



https://www.allaboutbirds.org/guide/Bank_Swallow/maps-range

(adapted from BirdLife International 2016)

BANK SWALLOW UPDATE

- Critical habitat
  - Partially identified
  - Based on confirmed nesting occurrences in natural settings reported between 2001 and 2017.
- Must have these two sets of biophysical attributes to be critical habitat
  - a vertical or near-vertical face made of erodible material, for suitable nesting habitat;
  - open habitats that produce insects, such as wetlands, salt marshes, grasslands, and hayfields, for suitable foraging habitat.
- Recovery Strategy
  - Federal Recovery Strategy – currently undergoing preparation for posting as final
- Protection order on federal lands (non-IR) is upcoming

GRIZZLY BEAR

(Special Concern)

© Ross Vennesland

The Grizzly bear is a large and muscular bear. Adult females are 100-150 kg (220-330 lbs.) and adult males are 180-270 kg (397-595 lbs.). Its colour ranges from blonde through shades of brown to nearly black.

The Grizzly Bear is found throughout BC.

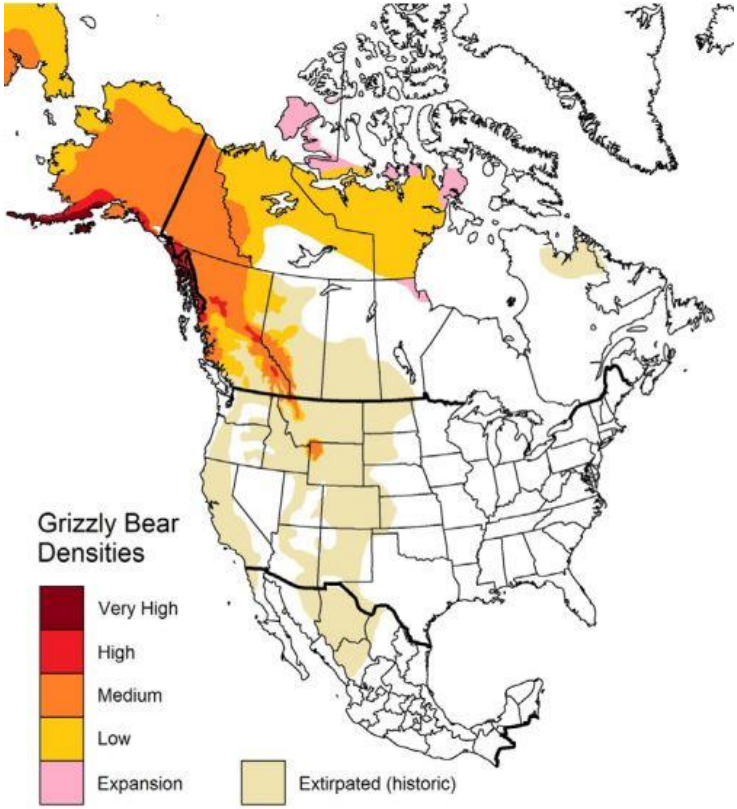
Habitat

- Temperate coastal rain forests, alpine tundra, mountain slopes, upland boreal forest, and dry grasslands.

Threats

- Habitat loss caused by roads and residential developments
- Poaching

GRIZZLY BEAR RANGE



Map produced by P. McLoughlin. Shared with permission

GRIZZLY BEAR UPDATE

- Engagement is Ongoing
- Upcoming Indigenous Knowledge Workshops
  - Purposes:
    - To help build our relationships with, listen to, learn from, and collaborate with Indigenous peoples
    - To deepen our understandings of Grizzly Bears in order to improve their wellbeing
    - Support meaningful approaches to include Indigenous perspectives and knowledge about Grizzly Bears in Canada's Management Plan
    - Invitations sent early November

MARBLED MURRELET

(Threatened)

The Marbled Murrelet is a small, plump seabird, ~25 cm in length. In winter its feathers are black and white and in summer they are marbled grey-brown (for camouflage when nesting).

The Marbled Murrelet is found along the coast and islands of BC.

MARINE CRITICAL HABITAT is being identified

"Marbled Murrelet" by Tom Benson

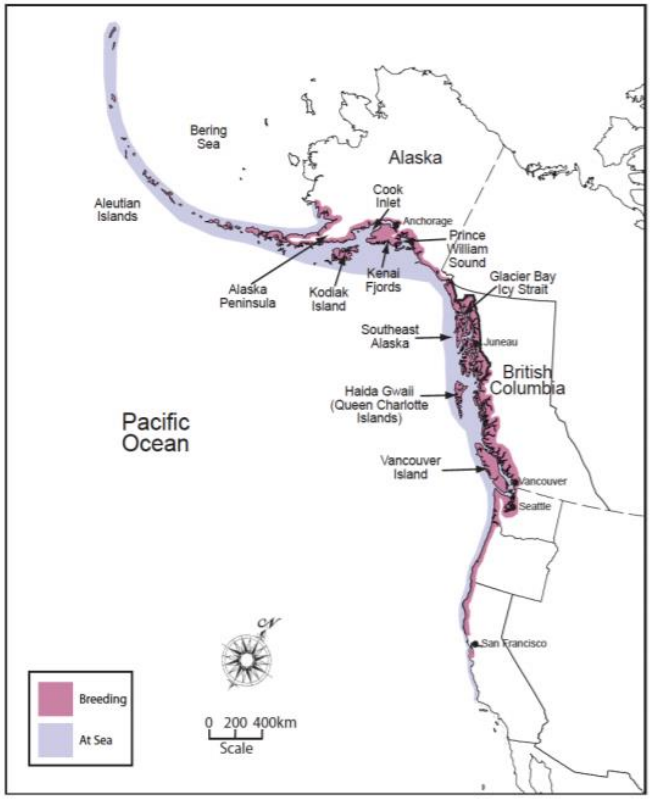
Habitat

- Nests in old-growth trees with high, well-hidden, moss-covered branches up to 50 km inland
- Feeds in marine areas close to shore

Threats

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

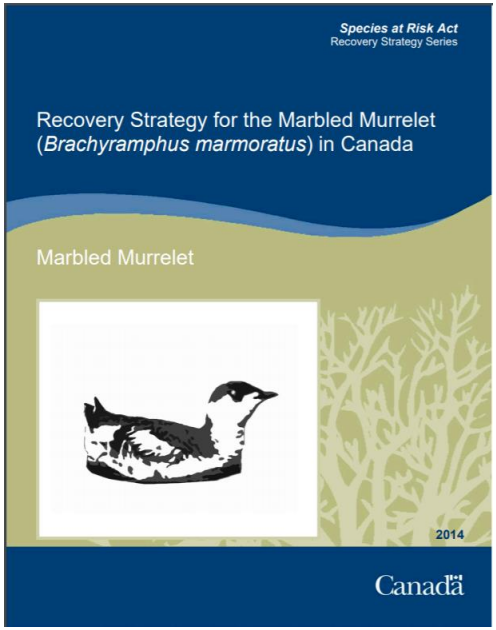
MARBLED MURRELET RANGE



Global Distribution of Marbled Murrelets (from Piatt et al. 2007, with permission)

MARBLED MURRELET UPDATE

- Recovery Strategy
  - Federal Recovery Strategy (amendment to include marine critical habitat)
  - Legislated Timeline: N/A (amendment); original Federal Recovery Strategy published as Final in 2014
  - Consultation/Engagement for amended Recovery Strategy: ONGOING
  - Proposed amendment to the Federal Recovery Strategy will be posted on the Species at Risk Public Registry for a 90-day comment period after fall 2021



OREGON FORESTSNAIL

(Endangered)

The Oregon Forestsnail is a large snail with a spiraled shell ~3.5 cm across. The shell is pale brown or straw-yellow and opens with a white, flared, outer rim.

The Oregon Forestsnail is found in the lower Fraser Valley in southwestern BC and on southeastern Vancouver Island.

Photo by Laurel Parshall

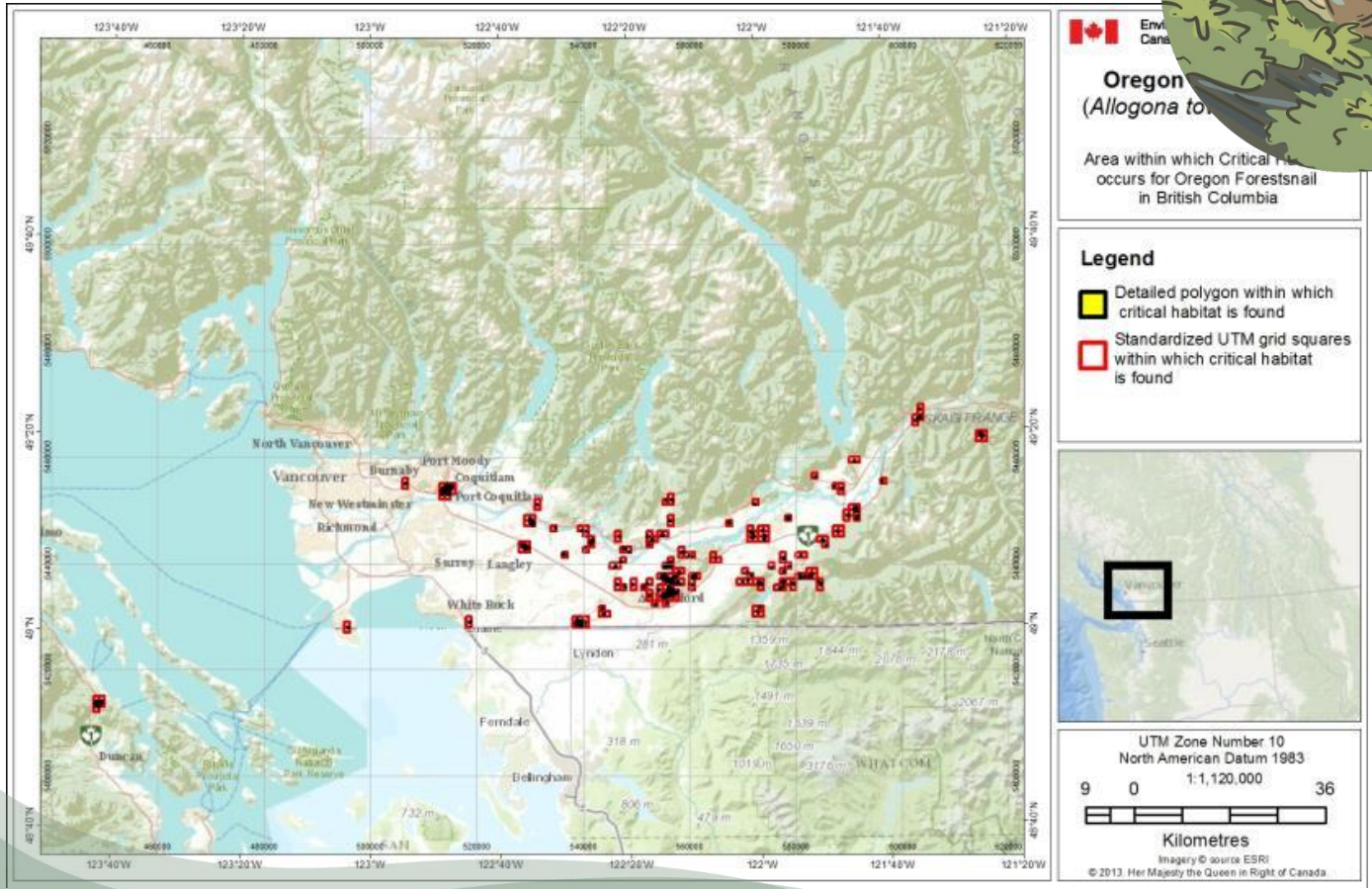
Habitat

- Older mixed-wood and deciduous lowland forests, typically with Bigleaf Maple and Black Cottonwood, with thick vegetation beneath the trees
- Stinging Nettle patches, and fallen branches and leaves

Threats

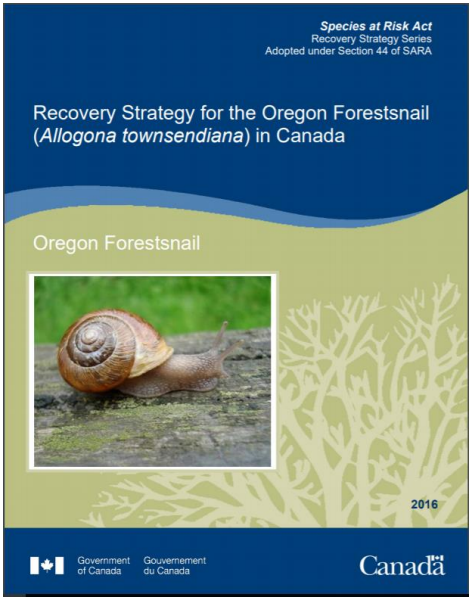
- Habitat fragmentation, loss, or damage caused by development
- Brush-burning, trampling, and pesticides
- Introduced species that compete for food and shelter

OREGON FORESTSNAIL RANGE



OREGON FORESTSNAIL UPDATE

- Recovery Strategy
  - Federal Recovery Strategy (amended to include updated information)
  - Legislated Timeline: N/A (amendment); original Federal Recovery Strategy published in 2016
  - Engagement for amended Federal Recovery Strategy: ONGOING
  - Proposed amendment to the Federal Recovery Strategy will be posted on the Species at Risk Public Registry for a 90-day comment period in or after winter 2022



SOUTHERN MOUNTAIN CARIBOU

(Threatened)

© John A. Nagy

The Southern Mountain Caribou are a medium sized member of the deer family. Caribou are unique in that both males and females have antlers. Their coats are mostly brown with a creamy white mane, shoulder stripe, underbelly, and patch just above the hoof. Caribou have large shovel-shaped hooves that allow them to dig for lichen and act as snowshoes in deep snow.

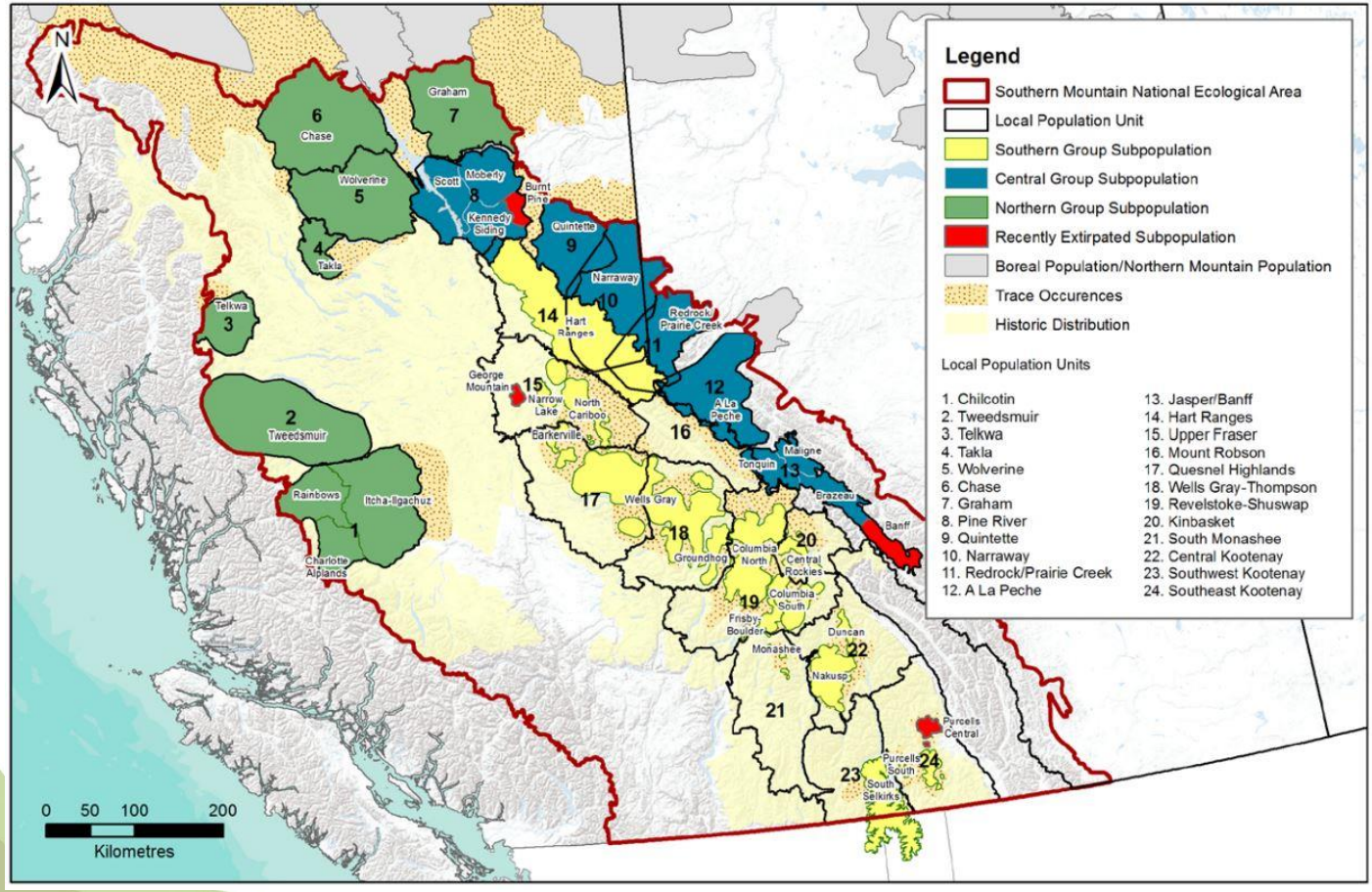
Habitat

- Mature and old-growth forests within seasonal high elevation ranges and low elevation migratory habitat

Threats

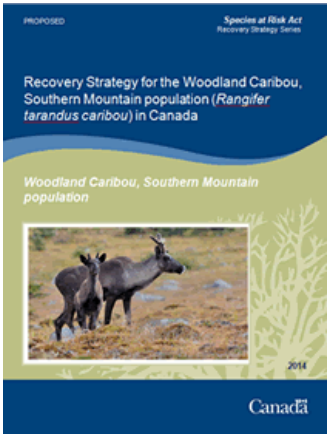
- Increased predation due to anthropogenic land use changes
- Habitat loss due to human disturbance, fire and forest insect pests

SOUTHERN MOUNTAIN CARIBOU RANGE



SOUTHERN MOUNTAIN CARIBOU UPDATE

- Recovery Strategy
  - Amending the 2014 Recovery Strategy
    - Updating critical habitat
    - Improving inclusion of Indigenous knowledge, perspectives and language



  - Ongoing engagement with Indigenous communities and groups
    - To verify Indigenous languages related to caribou for use within the RS
    - Workshops are being planned for winter 2022 on other updates to the RS following six workshops in 2021

SPOTTED OWL *caurina* subspecies

(Endangered)

The Spotted Owl *caurina subspecies* is ~45cm (18”) in length with a wingspan of ~90 cm (35”). It has dark brown feathers speckles with small, pale spots over most of its body. It has light feathers around its large, dark eyes.

The *caurina subspecies* of the Spotted Owl is found in the southwest mainland of BC.

© JaredHobbs

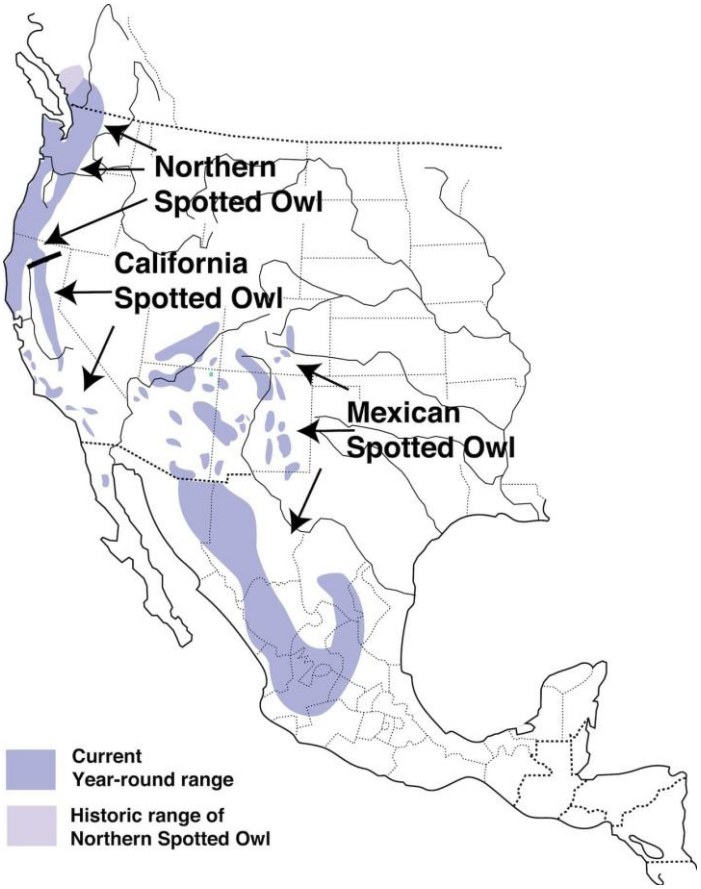
Habitat

- Mature and old, coniferous and mixed-coniferous forests with uneven-ages trees, including numerous large trees with broken tops, large holes and large dead or dying trees (i.e. snags)

Threats

- Barred Owls, which compete for habitat and prey
- Habitat loss and damage caused by road-building, logging, fire and fire suppression

SPOTTED OWL RANGE



Distribution of the Spotted Owl in North America. (Chutter et al. 2004; adapted from Gutiérrez et al. 1995).

SPOTTED OWL UPDATE

- Recovery Strategy
  - Posted Final RS in 2004
  - Amended RS to include updated critical habitat
  - Engagement ongoing – posting as proposed expected winter/early spring 2022

BIRDS (More details)

Species	Scientific Name	SARA Status	Recovery Document
Barn Owl (Western Population)	*Tyto alba*	Threatened	RS
Barn Swallow	*Hirundo rustica*	Threatened - listing consultation upcoming (Special Concern)	RS (MP)
Black Swift	*Cypseloides niger*	Endangered	RS
Bobolink	*Dolichonyx oryzivorus*	Threatened	RS
Buff-breasted Sandpiper	*Calidris subruficollis*	Special Concern	MP
Canada Warbler	*Cardellina canadensis*	Threatened - listing consultation upcoming (Special Concern)	RS (MP)
Cassin's Auklet	*Ptychoramphus aleuticus*	Special Concern	MP
Evening Grosbeak	*Coccothraustes vespertinus*	Special Concern	MP
Horned grebe	*Podiceps auritus*	Special Concern	MP
Lesser Yellow Legs	*Tringa flavipes*	Unlisted – listing consultation upcoming (Threatened)	N/A (RS)
Short-eared Owl	*Asio flammeus*	Special Concern – listing consultation upcoming (Threatened)	MP (RS)
Western Grebe	*Aechmophorus occidentalis*	Special Concern	MP
Western Screech-Owl (*kennicottii* subspecies)	*Megascops kennicottii kennicottii*	Threatened	RS
Western Screech-Owl (*macfarlanei* subspecies)	*Megascops kennicottii macfarlanei*	Threatened	RS

Barn Owl
Western population

(Threatened)

The Barn Owl is ~37 cm (~15") in length 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.

© ConnorStefanison

HABITAT

- Nests in human-made structures
- Hunts in grasslands, meadows, marshlands, and open farmland

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss caused by urban development
- Conversion of open farmland to more intensive agriculture
- Demolition of structures that had been used for nesting
- Indirect poisoning from rodenticides

RECOVERY DOCUMENTS

- Change in listing to Special Concern
- Updated critical habitat in Recovery Strategy

Barn Swallow

(Threatened – under consideration for special concern)

The Barn Swallow is a songbird 15-18 cm (~6-7") in length. It has a chestnut throat and forehead and steely-blue upperparts. Males also have dark chestnut underparts and females have light cinnamon underparts. It has a long, deeply forked tail. The male's tail is longer than the female's tail.

© ConnorStefanison

The Barn Swallow is found throughout BC.

HABITAT

- Human made structures, such as barns, garages, houses, bridges, and road culverts
- Open grassy fields, pastures, agricultural crops, lake and river shorelines, wetlands and cleared rights-of-way

THREATS TO SURVIVAL OR RECOVERY

- Loss of nesting and hunting habitats caused by some changes in farming practices
- Large scale loss of insects

RECOVERY DOCUMENTS

- Recovery Strategy led by National Capital Region (Ottawa)
- Listing consultations on status change to Special Concern (2022)

Black Swift

(Endangered)

The Black Swift is the largest swift in North America, ~18 cm (~7") in length. It is almost entirely black. It has long, pointed wings and a notched tail.

The Black Swift is found across BC.

© Andrew Spencer

HABITAT

- Their nesting habitat is near or behind waterfalls and in caves, located in canyons and sometimes on sea cliffs
- Their nest sites are characterized by presence of flowing water, high relief, inaccessibility, darkness, and an unobstructed flight path

THREATS TO SURVIVAL OR RECOVERY

- Airborne pollutants that kill insects which Black Swifts hunt
- Reduced stream flow at nest sites and a mismatch between the time food is available and the swift's breeding cycle caused by climate change

RECOVERY DOCUMENTS

- Recovery Strategy anticipated posting for 2021/2022

Bobolink

(Threatened)

The Bobolink is a medium sized songbird (15 cm (~6"). In the summer breeding season, males are black with a white back and yellow collar. Females are tan with black stripes year round. Outside of the breeding season, males look like the females.

The Bobolink is found in southern BC.

© Frontier Digital Arts

HABITAT

- Grasslands, forage crops
- Wet prairie, peatlands, abandoned fields, tall-grass prairie, small-grain fields, restored surface mining sites, fields

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss or damage caused by agricultural activities
- Habitat fragmentation, leading to more predators at the edge of fields
- Pesticide use

RECOVERY DOCUMENTS

- Recovery Strategy led by Atlantic region

Buff-breasted Sandpiper

(Special Concern)

The Buff-breasted Sandpiper is a medium sized shorebird with a buff, or cream, coloured face and underparts, and brown-black speckling on its wings and back.

Buff-breasted Sandpipers are found along the BC coast during migration.

© Ted Swem

HABITAT

- Tundra, used during breeding
- Grasslands and agricultural fields, used for stopovers during migration

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss due to change of use and loss of agricultural lands
- Agricultural practices that expose these birds to chemicals and reduce the amount of food

RECOVERY DOCUMENTS

- Management Plan led by National Capital Region (Ottawa)

Canada Warbler

(Threatened – under consideration for special concern)

The Canada Warbler is a small, brightly coloured songbird that is ~12-15cm (~5-6") in length. 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

HABITAT

- Wet, mixed deciduous-coniferous forest

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss caused by urban and agricultural development

Cassin's Auklet

(Special Concern)

Cassin's Auklet is a small, chunky ground-nesting seabird. It is dark on top and lighter on the bottom with a small pale spot on the underside of its beak and above its eye.

Cassin's Auklet is found along the BC coast.

© Melissa Hafting

HABITAT

- Nests on coastal islands
- Coastal Pacific waters for feeding

THREATS TO SURVIVAL OR RECOVERY

- Oil spills
- Introduced predators onto island breeding colony (rats, raccoons, mink)
- Increases in ocean temperature

RECOVERY DOCUMENTS

- Proposed Management Plan

Evening Grosbeak

(Special Concern)

The Evening Grosbeak is a stocky, boldly coloured songbird with a large green-yellow bill, black tail, and black wings with a white patch. Adult males have a yellow body and a dark brown head with a bright yellow eyebrow. Adult females and juveniles are grey-brown with yellow on the back of the neck and sides.

The Evening Grosbeak is found across BC.

© Cephas

HABITAT

- Open, mature mixed wood forests, with lots of fir trees and/or White Spruce and Boreal Forests
- Gardens with bird feeders

THREATS TO SURVIVAL OR RECOVERY

- Loss of Spruce Budworm, its main source of food
- Death caused by striking windows when visiting bird feeders
- Habitat loss caused by forestry

RECOVERY DOCUMENTS

- Management Plan led by Atlantic Region
- Anticipated posting 2021/2022

Horned Grebe

Western population

(Special Concern)

The Horned Grebe is a small waterbird. It is black and white in the winter. When breeding, its sides and neck are chestnut-red. It has bright yellow feathers behind its red eyes, which look like "horns".

In BC the Horned Grebe is found east of the coastal mountains and on the south coast in winter.

© Jukka Jantunen

HABITAT

- Small, shallow semi-permanent or permanent ponds, marshes, and shallow bays on lake borders
- Open water with vegetation

THREATS TO SURVIVAL OR RECOVERY

- Loss of wetland habitats caused by agriculture and climate change
- Pesticides, fertilizers, and animal waste that damage water bodies

RECOVERY DOCUMENTS

- Management Plan led by National Capital Region (Ottawa)

Lesser Yellowlegs

(not listed– under consideration for threatened)

The Lesser Yellowlegs is a medium-sized shorebird with long, yellow-orange legs, a white or spotted belly, and grey-brown and black mottled back and wings. In the winter, its wings are dark brown with light white spots, and the species develops a white ring around the eyes and a white eyebrow.

© Michael Klotz (Flickr)

The Lesser Yellowlegs nests in taiga and boreal regions in northern BC and is found across the province during migration.

HABITAT

- Wetland habitats
- Breeds in open forests and meadows that have marshes and bogs

THREATS TO SURVIVAL OR RECOVERY

- Loss of wetland and intertidal habitats
- Hunting for sport or food
- Change in habitat from climate change induced hazards

RECOVERY DOCUMENTS

- No status

SHORT-EARED OWL

(special concern– under consideration for threatened)

The Short-Eared Owl is ~34-42 cm (~13.4-16.6") in length. 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.

The Short-Eared Owl is found throughout most of BC.

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

HABITAT

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

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss or damage caused by residential and commercial development and agricultural practices

Western Grebe

(Special Concern)

The Western Grebe is a large waterbird. It has a white throat, breast and belly. Its head, neck, back and wings are black and grey. It has bright red eyes and a long, pointed yellow-green bill.

The Western Grebe is found in the southern interior of BC and along the entire coast of BC in winter.

© Frank Schulenburg

HABITAT

- Nests near shores of lakes and marches with stable water levels, open water, and vegetation
- Large lakes during migration where it feeds
- Sheltered salt or brackish water in bays, inlets, estuaries, lagoons and channels during the winter

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss and damage
- Oil and other chemical pollution, and harmful algal blooms
- Being caught in fishing nets (bycatch)

RECOVERY DOCUMENTS

- Proposed Management Plan led by National Capital Region (Ottawa)

Western Screech-owl
kennicottii subspecies

(Threatened)

The Western Screech-Owl is ~19-25.5 cm (~7.5-10") in length. It is mostly grey-brown, but its front is lighter and it has a white breast with thin dark streaks.

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

- Habitat loss or damage caused by urban development and agricultural and forestry practices
- Barred Owls that prey on this bird

Western Screech-owl
macfarlanei subspecies

(Threatened)

The Western Screech-Owl is ~19-25.5 cm (~7.5-10") in length. It is mostly grey-brown with a light coloured breast with fine, dark streaks.

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

© Jared Hobbs

HABITAT

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

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss or damage caused by urban development, agricultural and forestry practices, and energy (e.g., hydroelectric) development and production
- Being hit or run over by vehicles

BEES (More details)

Species	Scientific Name	SARA Status	Recovery Document
Gypsy Cuckoo Bumblebee	*Bombus bohemicus*	Endangered	RS
Western Bumble Bee (*mckayi* subspecies)	*Bombus occidentalis mckayi*	Special Concern	MP
Western Bumble Bee (*occidentalis* subspecies)	*Bombus occidentalis occidentalis*	Threatened – pending listing decision	RS
Yellow Banded Bumble Bee	*Bombus terricola*	Special Concern	MP

Female Gypsy Cuckoo Bumblebee by Sheila Colla

Female Western Bumble Bee *(occidentalis)* by Sheila Colla

Female Yellow Banded Bumble Bee by Sheila Colla

GYPSY CUCKOO BUMBLE BEE

(Endangered)

Gypsy Cuckoo Bumble Bee is a medium-size (~12-18mm in length) black and yellow bumble bee with a white tip at its end. The bumble bee queen takes over the nests of other bumble bee species (i.e., host) and controls those workers to raise its young.

The Gypsy Cuckoo Bumble Bee may be found throughout the interior and northern BC.

© Rehanon Pampell

HABITAT

- Meadows, mixed farmlands, urban areas, boreal forest and montane meadows

THREATS TO SURVIVAL OR RECOVERY

- Decline of other host bumble bee species, especially Western Bumble Bee and Yellow-banded Bumble Bee in BC
- Parasites and infections from introduced commercial bumble bees spread to and through its host bumble bees, pesticides, habitat loss and climate change

RECOVERY DOCUMENTS

- Recovery Strategy led by Northern region
- Anticipated posting 2021/2022
- Possibility for simultaneous s. 58 consultations

WESTERN BUMBLE BEE

MCKAYI AND *OCCIDENTALIS* SUBSPECIES

(Special Concern and Threatened)

The Western Bumble Bee is a medium-sized bumble bee 1-2 cm in length (~0.4-0.8”). It has a band of yellow hair in front of the base of the wings and the tip of the body is almost always white.

The *mckayi* subspecies of the Western Bumble Bee is found in northern BC and the *occidentalis* subspecies is found in southern Vancouver Island, the Lower Mainland, lower Fraser Valley, and the Okanagan and Kootenay regions of BC.

© David Inouye

HABITAT

- Mixed woodlands, farmlands, urban areas, montane meadows, and into the western edge of the prairie grasslands0

THREATS TO SURVIVAL OR RECOVERY

- Illnesses passed onto the *occidentalis* subspecies
- Habitat loss caused by changes in agricultural land use practices and pesticide use

RECOVERY DOCUMENTS

- Proposed Management Plan for *occidentalis mckayi* led by National Capital Region (Ottawa)

Yellow-banded Bumble Bee

(Special Concern)

The Yellow-banded Bumble Bee is a medium-sized Bumble Bee with a short head and tongue length relative to other Bumble Bees. It has a distinct yellow and black abdominal band pattern.

© COSEWIC Secretariat

The Yellow-banded Bumble Bee is found in eastern and central BC, with some sightings reported on the coast.

HABITAT

- Mixed woodlands, farmlands, urban areas, montane meadows, prairie grasslands and boreal habitats
- It nests underground in pre-formed cavities like abandoned rodent burrows and rotten logs

THREATS TO SURVIVAL OR RECOVERY

- Possible threats include introduced diseases from managed Bumble Bees used in greenhouses, pesticides from agriculture, climate change, and habitat loss from urbanization and agriculture

RECOVERY DOCUMENTS

- Proposed Management Plan

INSECTS (THAT AREN'T BEES) (More details)

Species	Scientific Name	SARA Status	Recovery Document
Audouin's Night Stalking Tiger Beetle	*Omus audouini*	Threatened	RS
Grappletail	*Octogomphus specularis*	Unlisted - - listing consultation upcoming (Special Concern)	n/a (MP)
Monarch	*Danaus plexippus*	Special Concern – pending GIC decision (Threatened)	MP (RS)
Nuttall's Sheep Moth	*Hemileuca nuttalli*	Unlisted	RS
Okanagan Efferia	*Efferia okanagana*	Endangered	RS
Olive clubtail	*Stylurus olivaceus*	Endangered	RS
Oregon Branded Skipper	*Hesperia colorado oregonia*	Unlisted – pending GIC decision (Endangered)	n/a (RS)
Vivid Dancer	*Argia vivida*	Special Concern	MP

Audouin's Night-stalking Tiger Beetle

(Threatened)

The Audouin's Night-stalking Tiger Beetle is a medium sized, dull black, flightless beetle 14-18mm (~0.55-0.71") in length.

Audouin's Night-stalking Tiger Beetle is found in southwestern BC in a small area of the Georgia Basin.

© Andy Teucher

HABITAT

- Low elevation coastal terrain, less than 20 m (65') above sea level and within 3 km (1.9 miles) of the saltwater shoreline
- Sandy areas near beaches with little vegetation, open grassy areas, coastal bluffs, meadows, open forests and older agricultural fields

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss caused by agricultural and urban development
- Pesticide and herbicide use

RECOVERY DCOUMENTS

- Recovery Strategy led by National Capital Region (Ottawa)

Grappletail

(not listed – under consideration for special concern)

The Grappletail is a large yellow-green and black dragonfly. Its wings are clear with black lines. Male Grappletails are 4.6-5 cm (1.8-2") and females are 4.4-4.5 cm (1.7-1.8") in length. Female Grappletails have slightly more yellow patterning on their bodies.

© David A Hofmann (Flickr)

The Grappletail is found in only seven streams in the mountains of the lower Fraser Valley in BC.

HABITAT

- Fast-flowing, warm streams that drain into small lowland lakes in forested mountainous areas
- Foraging habitats are in forests near the streams

THREATS TO SURVIVAL OR RECOVERY

- Roadkill at stream crossings
- Disturbance from recreational vehicles

RECOVERY DOCUMENTS

- No status

Monarch

(Special Concern pending decision on listing as Endangered)

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

The Monarch is found in south-central 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

- Habitat loss or damage caused by herbicides and pesticides
- Invasive plants that compete with milkweed, which this species relies on

RECOVERY DOCUMENTS

- COSEWIC assessed as Endangered, leading to proposed Recovery Strategy
- Posted final Management Plan

Nuttall's Sheep Moth

(Endangered)

The Nuttall's Sheep Moth is a large and eye-catching moth that flies during the day. It has white to pale yellow forewings and bright yellow hindwings which are both patterned with thick black markings. The caterpillars are black and spiny.

© Jennifer Heron

The Nuttall's Sheep Moth is found in the southern part of the Okanagan Valley in BC.

HABITAT

- Areas with the species' host plant, Antelope-brush
- Grassland, shrub-steppe, and open dry forests

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss or damage caused by agricultural, commercial, and residential development and tourism and recreation
- Fire suppression and wildfires
- Pesticides or herbicides

RECOVERY DOCUMENTS

- Proposed Recovery Strategy ready to be posted once listed as Endangered

Okanagan Efferia

(Endangered)

The Okanagan Efferia is a large (up to 2 cm (0.8”) long) brown fly with orange-golden bristles behind the eyes.

The Okanagan Efferia is found in the Okanagan and Thompson valleys of south-central BC.

Photo by Werner Eigelsreiter

HABITAT

- Dry grasslands growing on gravelly or sandy soils
- Open soils usually present

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss and degradation from development, livestock and recreation
- Wildfires and related changes, invasive plants, climate change and pesticide effects

RECOVERY DOCUMENTS

- Proposed Recovery Strategy anticipated posting for 2021/2022

Olive Clubtail

(Endangered)

The Olive Clubtail dragonfly is ~6cm (~3”) in length. It has bright blue and widely separated eyes, and a green-grey abdomen with yellow markings at the top of each segment. The Clubtail family is characterised by a large abdomen and a large, club-shaped end segment.

The Olive Clubtail is found in the Thompson, Okanagan and Boundary regions in BC.

© Chris R

HABITAT

- Permanently flowing rivers and streams with mud or sand bottoms
- Natural shoreline/upland vegetation

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss caused by intensive recreational watersports
- Habitat loss from development and channeling rivers and streams

RECOVERY DOCUMENTS

- Proposed Recovery Strategy anticipated posting for 2021/2022

Oregon Branded Skipper

(Endangered)

The Oregon Branded Skipper is a small butterfly with a wingspan of 25-37 mm (~1-1.5") in length. It has tawny-orange wings with noticeable whitish markings. It flies in an erratic pattern.

The Oregon Branded Skipper is found in the southern portion of Vancouver Island in BC.

© COSEWIC

HABITAT

- Garry Oak and associated ecosystems

THREATS TO SURVIVAL OR RECOVERY

- Pesticides used to control the non-native Gypsy Moth
- Habitat loss and damage caused by fire suppression, invasive non-native plant growth, recreational activities, and severe weather events associated with climate change such as storms and flooding

RECOVERY DOCUMENTS

- COSEWIC assessed as Endangered with Recovery Strategy to follow

Vivid Dancer

(Special Concern)

The Vivid Dancer is a damsel fly about 29.5-35 mm (1.16-1.4") long. The species is characterized by a bright blue colour, especially in males. Vivid Dancer is distinguished from other damselflies by its long legs, wing veins and reproductive organs.

The Vivid Dancer can be found in southern BC.

© Argia Vivida

HABITAT

- Thermal springs and cooler spring-fed creeks in the Interior
- Water habitats and nearby forests

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss due to water diversion or degradation
- Altering springs for human recreation

RECOVERY DOCUMENTS

- Upcoming listing as Special Concern
- Proposed Management Plan anticipated posting early 2022

HERPTILES (REPTILES & AMPHIBIANS) (More details)

Species	Scientific Name	SARA Status	Recovery Document
Wandering Salamander	*Aneides vagrans*	Special Concern	MP
Western Yellow-bellied Racer	*Coluber constrictor mormon*	Special Concern (pending decision to list as Threatened)	MP (RS)

Wandering Salamander from Vancouver Island by Kristiina Ovaska

Western Yellow-bellied Racer
Photo by Jared Hobbs

Wandering Salamander

(Special Concern)

The Wandering Salamander is 75-130 mm (~3-5") in length from tip to tail. It has a grey and bronze spotted pattern covering a brown to grey-black head, back and tail. It has long legs and squared-off toes which helps it to climb trees.

© Barbara Beasley

The Wandering Salamander is found on Vancouver Island and the Sunshine Coast, BC.

HABITAT

- Damp places under bark, logs and in cracks of decaying wood
- Old coniferous forests, edges of forests, or even residential yards

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss caused by logging and development
- Severe and prolonged droughts due to climate change

RECOVERY DOCUMENTS

- Final Management Plan posted November 2021

Western Yellow-bellied Racer

(Special Concern pending decision on listing as Threatened)

The Western Yellow-bellied Racer is typically ~1 m (~3') long, but it can reach ~180 cm (~6') in length. It has a smooth body with a green-yellow back and a yellow belly.

© Laura Gardiner

The Western Yellow-bellied Racer is found in BC's Okanagan, Similkameen, Nicola and Thompson watersheds.

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

- Habitat loss or damage caused by urban and agricultural development
- Being poisoned by pesticides
- Being hit or run over by vehicles

RECOVERY DOCUMENTS

- Pending listing change to Threatened
- Proposed Recovery Strategy anticipated posting for 2022

OTHER MAMMALS (MORE DETAILS)

Species	Scientific Name	SARA Status	Recovery Document
Collared pika	*Ochotona collaris*	Special Concern	MP
Wolverine	*Gulo gulo*	Special Concern	MP

Collared Pika - John Nagy

Wolverine – Lee Mennell

Collared Pika

(Special Concern)

The Collared Pika is a small rodent ~20 cm (~8") in length. It is dull grey with pale grey patches on the back of the neck and shoulders. It has round ears and looks like a hamster.

The Collared Pika is found in northwestern BC.

© Gailhampshire

HABITAT

- Alpine boulder fields (talus) and meadows that provide food and shelter

THREATS TO SURVIVAL OR RECOVERY

- Changes in temperature, moisture or weather conditions caused by climate change
- Loss of habitat due to changes in alpine vegetation and an advancing tree line

RECOVERY DOCUMENTS

- Management Plan led by Northern region

Wolverine

(Special Concern)

The wolverine is a stocky, medium-sized carnivore. It is the largest land based member of the weasel family, ~1 m (3.3') in length not including the tail. Its brown-black fur is long, coarse, and glossy. It has a pale facial mask and two pale stripes on the sides of its body starting at the shoulder.

The Wolverine is found across BC (except Haida Gwaii).

© Susanne Nillsson-wiki

HABITAT

- A wide variety of habitats, from valley bottoms to alpine tundra

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss and fragmentation caused by human development, such as roads, cities, and industrial activity
- Potential overharvest
- Less spring snow cover during the denning period caused by climate change

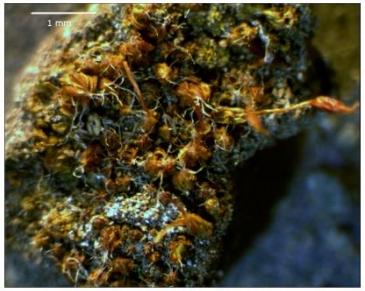
RECOVERY DOCUMENTS

- Management Plan led by Northern region

MOSS, LICHENS, AND A SLUG (More details)

Species	Scientific Name	SARA Status	Recovery Document
Crumpled tarpaper lichen	*Collema coniophilum*	Threatened	RS
Haida Gwaii Slug	*Staala gwaii*	Special Concern	MP
Roells Brotherella	*Brotherella roellii*	Endangered	RS
Tiny Tassel	*Crossidium seriatum*	Special Concern	MP
Seaside Centipede Lichen	*Heterodermia sitchensis*	Endangered – under consultation for listing as Threatened	RS
Western Waterfan	*Peltigera gowardii*	Special Concern	MP

Crumpled Tarpaper Lichen by Tim Wheeler



Tiny Tassel by Lyn Baldwin

Haida Gwaii Slug, *Staala gwaii*

Crumpled Tarpaper Lichen

(Threatened)

The Crumpled Tarpaper Lichen is a leafy lichen with broad rounded lobes 2-4 mm (~0.2') wide. The smooth upper surface of the leaves are dark olive green to black-brown. Sometimes the leaves appear blistered.

© Timothy B. Wheeler

The Crumpled Tarpaper Lichen is found east of Prince George and in the Rocky Mountain Trench in BC.

HABITAT

- Humid, old forests above 100 years old
- Nutrient-enriched trees

THREATS TO SURVIVAL OR RECOVERY

- Loss of old growth forest caused by logging, wildfire, disease, insect outbreak, and blow down

RECOVERY DOCUMENTS

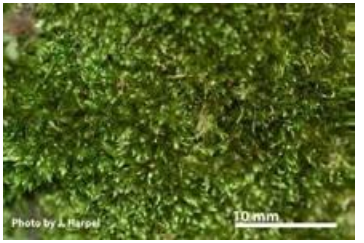
- Proposed Recovery Strategy

Roell's Brotherella Moss

(Endangered)

Roell's Brotherella Moss is a small, green or green-yellow moss that grows in turf-like mats. It has tiny flat stems and its leaves are jagged along the top edges.

Roell's Brotherella Moss is found in southwestern BC.



© J. Harper

HABITAT

- Cool, humid mixed deciduous and coniferous second-growth and old-growth forests
- Stream terraces, swampy floodplains, creek ravines
- Grows on trunks of live trees, rotting logs and stumps, especially Red Alder, Bigleaf Maple, Western Flowering Dogwood, and Birch

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss or damage caused by residential and commercial development, recreational and tourism activities

RECOVERY DOCUMENTS

- Proposed Recovery Strategy anticipated posting for 2021/2022

Tiny Tassel

(Special Concern)

Tiny Tassel is a very small moss, ~1.5 mm (~0.05") tall. It is dark green-golden brown. Tiny Tassel is found in clumps or with other mosses.

Tiny Tassel is found in the Fraser, Thompson, Nicola, and Okanagan River valleys of the southern interior of BC.

© Lyn Baldwin

HABITAT

- Dry grasslands and shrub-steppe habitat usually at 300-700 m (~984-2,297') elevation

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss caused by road expansion and road maintenance

RECOVERY DOCUMENTS

- Upcoming listing as Special Concern
- Proposed Management Plan anticipated posting early 2022

Western Waterfan

(Special Concern)

The Western Waterfan is a leafy lichen that forms in small rosettes that are attached to rocks at or below water. It is olive-black and jelly-like when wet but slate gray-black and crisp when dry. The upper surface is smooth and dull, and the lower surface has pale veins. Its fruit are red-brown.

The Western Waterfan is found near the towns of Clearwater, Smithers, Terrace and Whistler, BC.

© D. Richardson

HABITAT

- At or below water level, in spring-fed streams in open subalpine and sometimes alpine meadows, above a 1200 m (3960') elevation
- Wide variety of rock types in streams

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss caused by human intrusion and recreational activities and changes to streamflow and water chemistry

RECOVERY DOCUMENTS

- Proposed Management Plan anticipated posting for 2021/2022

Haida Gwaii Slug

(Special Concern)

The Haida Gwaii Slug is a small slug, 1-2 cm (~0.5-1") long. It is jet black-grey or tan with tiny black tipped spikes all over its body. It also has a large hump with dark spots.

© K.Ovaska

The Haida Gwaii Slug is found on the main islands of the Haida Gwaii archipelago and on Brooks Peninsula on northwestern Vancouver Island, off the coast of BC.

HABITAT

- Open, subalpine habitats with scattered, stunted trees, low shrubs and grasses, and very damp ground
- Humid microhabitat conditions, downed wood, rocks or a deep moss mat for protection

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss or alteration caused by changes related to climate change such as moving tree line and temperature changes
- Habitat loss from grazing Sitka Black-tailed Deer
- Logging and road building

RECOVERY DOCUMENTS

- Recovery Strategy amendment updating its critical habitat
- Posted in summer 2021

Seaside Centipede Lichen

(Endangered – under consideration for Threatened)

Seaside Centipede Lichen is a cushion-shaped leafy lichen shaped ~2 cm (~1") in length. The lobes are thin, stiff, separate and irregularly branched with hairs along the edges. The upper surface is pale green-white with white spots and the lower surface is white.

© Anna Roberts

The Seaside Centipede Lichen is found on coastal southern Vancouver Island, BC.

HABITAT

- Lower branches of Sitka Spruce trees in old-growth Western Hemlock forests

THREATS TO SURVIVAL OR RECOVERY

- Habitat loss caused by logging and residential development
- Human recreation
- Increasing intensity of winter storms

QUESTIONS?

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