

An aerial photograph of the Coburg Peninsula. A paved road curves along the coastline, separating a grassy area from a turquoise lagoon on the left and the ocean on the right. In the background, a white house and a bridge are visible. The sky is clear and blue.

# **COBURG PENINSULA**

## **Plant Identification Field Booklet**



# PREAMBLE

Created in December 2007 by the Esquimalt Lagoon Stewardship Initiative (ELSI), this is a basic plant identification field booklet specific to the Coburg Peninsula in Colwood, British Columbia. The plant species inventoried in this booklet are based directly on the floristics previously amassed by Bein (2005). The emphasis of this booklet is on positive plant identification through the primary use of photos rather than recognition based on pure technical wording or description. It is meant to be a user-friendly tool-on-the-fly for lay-persons, rather than a kind of systematic treatise for specialists.

However, it should be noted that proper identification of some plants, particularly grasses, sedges and rushes, is often relegated to expert botanists with aid of a dissection microscope. Field identification of these plants – especially pre-flowering or post-fruiting – may not always be possible. For this reason, collection of certain plants (if sensitive and appropriate to conservation efforts) for identification at a herbarium may be the only course of action.

Plants are organised not by major evolutionary groupings, but by general lifeform as follows:

- grasses, sedges and rushes
- ferns
- herbs
- vine-like shrubs
- trees and shrubs

Within each lifeform group, species are listed alphabetically by scientific name.

The scope of this booklet captures plants of the entire peninsula region, not narrowed or limited to any one ecosystem class. Seven general ecosystem classes have been identified on the peninsula, and the ecosystem(s) from which each plant species has previously been identified is noted. See map for delineation of the ecosystem class areas.

## Ecosystem Classes (as outlined in Bein, 2005)

- Beach Ridge
- Dune
- Coastal Meadow
- Coastal Shrub
- Coastal Tree
- Tidal Marsh
- Tidal Meadow

Nomenclature for both scientific and common names as well as the 'Conservation Status' of the plants follows current postings of the Conservation Data Centre (CDC), Province of British Columbia. **Yellow**, **Blue** and **Exotic** plant species make up known statuses on the peninsula (see end of booklet for status descriptions).

# GRASSES, SEDGES and RUSHES

*Sedges have edges,  
rushes are round,  
grasses are hollow...  
(usually)*



*Aira praecox*  
**early hair grass**

Ecosystem Class: Dune;

Coastal meadow

BC List Status: **Exotic**

- Tufted, 5 to 25 cm tall
- Inflorescence spike-like, 1 to 3 cm long
- This grass tends to whither and turn golden brown as summer progresses





***Arrhenatherum elatius***  
**tall oatgrass**

Ecosystem Class: Coastal  
meadow

BC List Status: **Exotic**

- Fairly tall, stiff grass, 80 to 150 cm tall
- Leaves flat, 4 to 10 mm wide
- Inflorescence 10 to 30 cm long
- Flowers in early summer to July



***Avena* sp.**

**oat**

Ecosystem Class: Coastal  
meadow

BC List Status: **Exotic**

- Both *Avena fatua* (pictured far left and bottom) and *Avena sativa* (top centre) are found in the Southern Vancouver Island area
- Both are escapees from cultivation



## *Bromus pacificus*

### Pacific brome

Local Ecosystem Class: Dune

BC List Status: **Yellow**

- *Bromus pacificus* (large picture at left) has soft hairy leaf blades and sheaths
- Other similar looking though unidentified (perhaps exotic) species of *Bromus* are also known on the Peninsula. Possible examples are pictured below





***Carex macrocephala***  
**dune sedge**

Ecosystem Class: Dune

BC List Status: **Yellow**

- The only sedge recorded thus far on the Peninsula
- Stems stiff, 10 to 40 cm tall
- Leaves yellowy-green, channelled and sharp-pointed







***Cynosurus echinatus***  
**hedgehog dogtail**

Ecosystem Class: Coastal  
meadow

BC List Status: **Exotic**

- Stems 20 to 50 cm tall
- Distinctive inflorescence, dense, often over 1 cm thick
- Prominent ligules, inflated sheaths (pictured bottom left)
- A weedy European grass





## *Dactylis glomerata* orchard grass

Ecosystem Class:

Coastal meadow

BC List Status: **Exotic**

- Stems to 1.5 m tall
- Leaf blades flat, 3 to 10 mm wide
- Young leaves can have a light bluish-green tinge to them





***Deschampsia cespitosa***  
**tufted hairgrass**

Ecosystem Class: Tidal marsh

BC List Status: **Yellow**

- Numerous stems, 20 to 120 cm tall
- Leaves quite stiff and narrow, 3 mm wide
- Open, loose inflorescence, 10 to 25 cm long





***Distichlis spicata* var. *spicata***  
**seashore saltgrass**

Ecosystem Class: Tidal meadow; Tidal marsh

BC List Status: **Yellow**

- Stems 10 to 40 cm tall and solid, rather than hollow
- Leaves are relatively short and stiff, 2 to 4 mm wide
- Sod-forming grass with old, yellowed leaves persisting on plant





***Elymus repens***  
**quackgrass**

Ecosystem Class: Coastal meadow;  
Tidal meadow

BC List Status: **Exotic**

- Stems erect, up to 1 m tall (can be curved at base)
- Leaves flat, 5 to 10 mm wide
- Inflorescence a stiff spike, 7 to 15 cm long
- A vigorous, persistent weed





***Festuca rubra* ssp.  
*rubra***  
**red fescue**

Ecosystem Class: Dune;  
Tidal meadow  
BC List Status: **Yellow**

- Stems 20 to 100 cm tall
- The base of stems are purplish-red and often bent
- Narrow leaves, roughly 1.5 mm wide, are folded or inrolled





*Holcus lanatus*  
**common velvet-grass**

Ecosystem Class: Dune

BC List Status: **Exotic**

- Stems are 30 to 100 cm tall and often covered with soft, velvety grey hairs
- Stems are rather weak and somewhat fleshy (succulent)
- Leaves flat, 3 to 10 mm wide





***Hordeum brachyantherum* ssp.  
*brachyantherum*  
meadow barley**

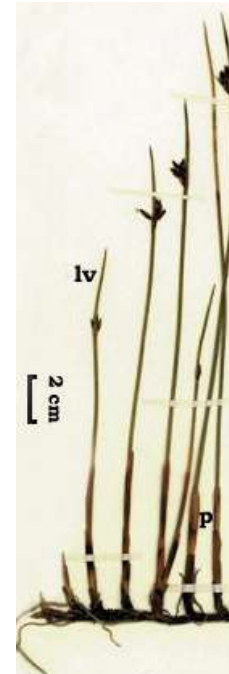
Local Ecosystem Class: Tidal marsh  
BC List Status: **Yellow**



- Stems erect, 20 to 90 cm tall, bent at base
- Flat leaves, 3 to 8 mm wide
- Inflorescence 4 to 10 cm long, quite brittle when ripe
- Other similar looking though unidentified (perhaps exotic) species of *Hordeum* are also known on the Peninsula. Possible examples are pictured below (*Hordeum jubatum*) and immediate left







## *Juncus arcticus* arctic rush

Ecosystem Class:

Tidal marsh

BC List Status: **Blue**

- Round stems, 10 to 100 cm tall, 1.5 to 4 mm thick at base
- A line of stems can often be found growing in a comb-like row because of its particular kind of roots (rhizomes)
- The only rush recorded thus far on the Peninsula





***Leymus mollis*  
ssp. *mollis*  
dune wild-rye**

Ecosystem Class:  
Beach ridge; Dune;  
Tidal meadow  
BC List Status:

**Yellow**

- Often grows in large clumps, with strong, erect stems 0.5 to 1.5 m tall
- Leaves are flat to folded and an impressive 6 to 15 mm wide



***Lolium* sp.**  
**perennial ryegrass**

Ecosystem Class: Dune; Coastal meadow

BC List Status: **Exotic**

- An unidentified species of *Lolium* has been inventoried on the peninsula which could be one of any number of species, such as *Lolium perenne* (far left, top and bottom), *Lolium multiflorum* (middle top and bottom) and *Lolium pratense* (immediate left and bottom right)





***Vulpia* sp.**  
**annual fescue**

Ecosystem Class: Dune; Coastal meadow

BC List Status: **Yellow** or **Exotic**

- An unidentified species of *Vulpia* has been inventoried on the peninsula which could be one of any number of species, such as *Vulpia bromoides* (far left [exotic]), *Vulpia myuros* (second from left [exotic]), *Vulpia octoflora* (second from right [native]) and *Vulpia microstachys* (far right [native]).

**FERNS**



*Polypodium glycyrrhiza*  
**licorice fern**

Ecosystem Class: Dune  
BC List Status: **Yellow**

- This is the only fern inventoried thus far on the Coburg Peninsula
- The specialised roots of this fern (known as rhizomes) are distinctly licorice flavoured, and serve as an important cold and cough medicine for many coastal First Nations



**HERBS**



## *Achillea millefolium* yarrow

Ecosystem Class: Dune; Coastal meadow; Tidal meadow

BC List Status: **Yellow**

- 10 to 100 cm tall with fern-like, almost feathery leaves.
- The plant is strongly aromatic, and this is a good indicator if at all unsure of its identification (ie. rub or crush a leaf between fingers), especially during vegetative state with no flowers
- This plant has been used by West Coast First Nations as a medicinal for a host of purposes, including headaches, diarrhea, colds and coughs childbirth.





*Allium cernuum* var.  
*cernuum*  
**nodding onion**

Local Ecosystem Class:

Coastal meadow

BC List Status: **Yellow**

- Slender stems up to 50 cm tall
- Grass-like, flat or channelled leaves
- Distinctly onion-scented





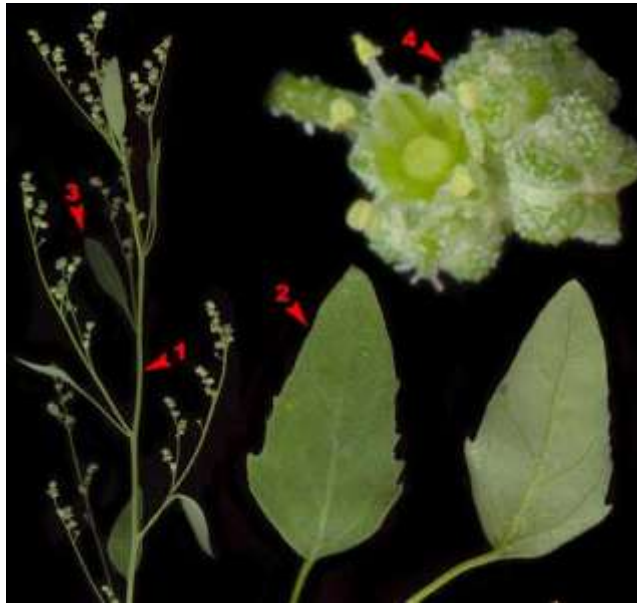
- Stems leafy, forming large clumps
- Leaves deeply toothed and generally covered with silvery coloured hair



## *Ambrosia chamissonis* silver burweed

Ecosystem Class: Beach ridge; Dune;  
Coastal meadow; Tidal flats

BC List Status: **Yellow**



*Atriplex patula*  
**common orache**  
Ecosystem Class: Tidal meadow; Tidal marsh  
BC List Status: **Exotic**

- A leafy plant, 10 to 100 cm tall
- Rather inconspicuous flowers, very tiny and greenish in colour, found in clusters on the ends of leaf stems
- Young plants are covered with a whitish, powdery substance, similar to cornmeal





*Cakile edentula*  
**American searocket**

Local Ecosystem Class: Beach ridge

BC List Status: **Yellow**

- Fleshy and somewhat sprawling with stems to 50 cm long
- Leaves are alternate to 7 cm long
- Whitish to pink coloured flowers found in clusters at the ends of stems
- Fruits are thick and two-jointed, tapering to a flattened tip
- Plant grows extremely well in sand





***Chenopodium* sp.**  
**lamb's-quarters, goosefoot**

Ecosystem Class: Coastal meadow

BC List Status: **Yellow** or **Exotic**

- Previously identified on the peninsula only to genus; could be species such as *Chenopodium rubrum* (red goosefoot; pictured bottom right) [**Yellow**] or *Chenopodium album* (lamb's-quarters; pictured at left) [**Exotic**]





***Cichorium intybus***  
**chicory**

Ecosystem Class:

Coastal meadow

BC List Status: **Exotic**

- Plant 30 to 150 cm tall
- Contains milky white juice
- Leaves alternate and many, having deeply toothed to lobed margins



***Daucus carota***  
**wild carrot**

Ecosystem Class:

Dune; Coastal meadow

BC List Status: **Exotic**

- 20 to 120 cm tall with fern-like (lacy) leaves
- In fruit, the inflorescence appears bird's-nest-like (see bottom middle photo)
- Leaves may look similar to yarrow in some instances; be sure to rub between fingers and check for scent if necessary. Wild carrot is not heavily aromatic like yarrow is.





*Grindelia integrifolia*  
**Puget Sound  
gumweed**

Ecosystem Class: Dune;  
Coastal meadow; Tidal  
meadow; Tidal marsh  
BC List Status: **Yellow**

- Stems, somewhat hairy, 15 to 80 cm tall
- Flower bracts glandular and slightly sticky to the touch (as per its common name 'gumweed')





*Hypochaeris radicata*  
**hairy cat's ear**

Ecosystem Class: Dune;

Coastal meadow

BC List Status: **Exotic**

- Entire plant contains milky white juice
- Stems 15 to 60 cm tall
- Flowers appear dandelion-like though open in sunny or dull weather





***Lathyrus japonicus* var.  
*maritimus*  
beach pea**

Ecosystem Class: Beach  
ridge; Dune

BC List Status: **Yellow**

- A trailing or climbing herb with stems up to 1.5 m long
- Compound leaves with even number of opposite leaflets
- Look for curly tendrils on ends of leaf stems
- Hairy pods up to 7 cm long, turning black when ripe





*Lomatium nudicaule*  
**barestem desert-  
parsley**

Ecosystem Class: Dune  
BC List Status: **Yellow**

- Hairless flowering stems 20 to 90 cm tall
- Leaves found mostly at base of plant
- Leaves, flowers and fruit are distinctly 'celery' flavoured
- Plant serves as an important vegetable for many First Nations





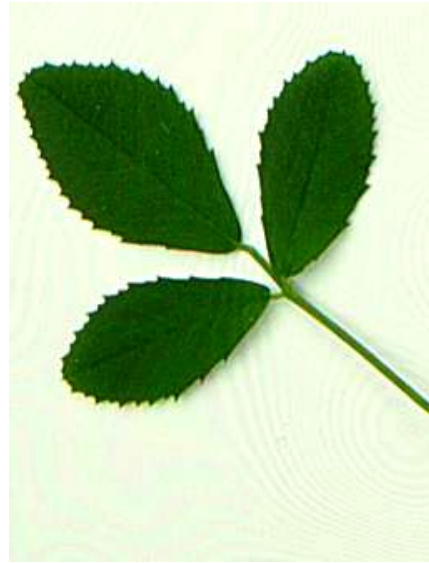
***Lupinus bicolor* ssp. *bicolor***  
**two-coloured lupine**

Ecosystem Class: Dune; Coastal  
meadow

BC List Status: **Yellow**

- Hairy stemmed, 10 to 40 cm tall
- Alternate leaves, with five to eight finger-like leaflets opened like a hand (palmately compound)
- Hairy pods, 1.5 to 2.5 cm long





***Melilotus alba***  
**white sweet-clover**

Ecosystem Class:

Coastal meadow

BC List Status: **Exotic**

- Much branching, with stems up to 2 m tall
- Sweet-smelling, with small white flowers clustered spike-like on stems
- Can serve as a nectar plant for honeybees





***Orobanche californica* ssp.  
*californica***

**California broom-rape**

Ecosystem Class: Coastal  
meadow

BC List Status: **Yellow**

- Parasitic herb, dark purple, 3 to 35 cm tall
- Round-topped clusters of purple flowers
- Parasitic on *Grindelia integrifolia* (Puget Sound gumweed) and *Ambrosia chamissonis* (silver burweed) on sandy beaches



*Plantago lanceolata*  
**ribwort plantain**

Ecosystem Class: Dune; Coastal  
meadow

BC List Status: **Exotic**

- may appear grass-like to some observers; flowering stems with angled grooves, 15 to 60 cm tall
- Leaves, somewhat oblong-shaped, all from the base of the plant, 5 to 40 cm long





*Plantago maritima* ssp.  
*juncooides*  
**sea plantain**

Tidal marsh

BC List Status: **Yellow**

- Flowering stems, 5 to 25 cm tall
- Leaves up to 20 cm long, linear and fleshy; most tend to point upwards







***Potentilla egedii***  
**coast silverweed**

Ecosystem Class: Tidal  
marsh

BC List Status: **Yellow**

- A somewhat hairy herb with long runners
- Leaves up to 40 cm long, with small and large leaflets
- Roots and important vegetable for many First Nations





*Rumex acetosella*  
**sheep sorrel**

Ecosystem Class:  
Dune; Coastal  
meadow

BC List Status:  
**Exotic**

- Thin stems, 15 to 50 cm tall
- Roughly arrowhead-shaped leaves 1 to 8 cm long
- Flowers red to yellowish in colour



***Rumex crispus***  
**curled dock**

Ecosystem Class: Coastal  
meadow

BC List Status: **Exotic**

- Stems 50 to 100 cm tall (or more)
- Leaves up to 40 cm long by 5 cm wide, with distinctively 'crisped' or curly leaf margins
- Flowers are greenish to a dull, rusty-red colour





***Salicornia virginica***  
**American glasswort**

Ecosystem Class: Tidal  
marsh

BC List Status: **Yellow**

- Thick, matted growth with trailing stems up to 1 m long
- Slender stems are fleshy and hairless; no obvious leaves
- Also known as 'sea asparagus', the plant serves as a wild and tasty green vegetable



***Sedum album***  
**white stonecrop**

Ecosystem Class:

Coastal meadow

BC List Status: **Exotic**

- Mat-forming
- Stems 10 to 20 cm long
- Small stem leaves, 6 to 12 mm, round in cross-section and succulent





*Sisymbrium officinale*  
**hedge mustard**

Ecosystem Class: Coastal  
meadow

BC List Status: **Exotic**

- Hairy, much-branched, to 80 cm tall
- Carries a distinctive, sweetish smell
- Lower base leaves up to 20 cm long





## *Spergularia canadensis* Canadian sand-spurry

Ecosystem Class: Tidal marsh

BC List Status: **Yellow**

- Clumped growth, 4 to 30 cm long; stems only 1 mm thick
- Fleshy, linear leaves (tubular-like)
- Small white to pinkish flowers
- Other similar looking though unidentified (perhaps exotic) species of *Spergularia* are also known on the Peninsula. Along with *Spergularia canadensis* (pictured upper and bottom left), possible examples are *Spergularia macrotheca* (pictured bottom middle; **Yellow**) or *Spergularia salina* (bottom right; **Exotic**)



# VINE-LIKE SHRUBS





*Hedera helix*

**English ivy**

Ecosystem Class: Shrub

BC List Status: **Exotic**

- An evergreen with aerial roots; stems can become up to 30 m tall
- Leaves 4 to 10 cm long, variously shaped, leathery and glossy
- Bluish to black coloured berries
- Introduced from Eurasia



*Rubus armeniacus*  
**Himalayan blackberry**

Ecosystem Class: Shrub

BC List Status: **Exotic**

- a thicket forming, course shrub or vine, 2 to 5 m long
- Alternate leaves, 3 to 5 leaflets, abruptly pointed at tip
- Beware the thorns!
- A more accurate common name for the plant would be Armenian blackberry (not Himalayan), reflecting its true place of origin.





***Rubus ursinus* ssp.  
*macropetalus***  
**trailing blackberry**  
Ecosystem Class: Coastal  
meadow  
(a vine or shrub)  
BC List Status: **Yellow**

- Thorny, with trailing stems up to 5 m long
- Alternate leaves with three leaflets per leaf
- Blackberries to 1 cm long and very very tasty



# TREES and SHRUBS



***Arbutus menziesii***  
**arbutus**

Ecosystem Class:  
Shrub

BC List Status: **Yellow**

- Leathery, evergreen leaves to 15 cm long
- Older bark peeling and a beautiful coppery-red
- Clusters of flowers white and fragrant (like buckwheat honey!)





***Amelanchier alnifolia***  
**saskatoon**

Ecosystem Class: Shrub

BC List Status: **Yellow**

- Shrub to small tree, 1 to 5 m tall
- Alternate leaves, with toothed margins on the top half of the leaf
- White showy flowers, 1 to 2.5 cm across
- Dull red to dark purple fruits are a favorite food of many BC First Nations, especially so in the interior





*Cytisus scoparius*  
**Scotch broom**

Ecosystem Class:  
Dune; Coastal  
meadow

BC List Status: **Exotic**

- Shrub to 3 m tall
- Green branches strongly 5-angled





***Mahonia aquifolium***  
**tall Oregon-grape**

Ecosystem Class: Shrub

BC List Status: **Yellow**

- Leaves are leathery and look very much like holly
- 5 to 9 leaflets per leaf
- bright yellow flowers; blue grape-like berries







*Malus fusca*  
**pacific crab apple**

Ecosystem Class: Shrub

BC List Status: **Yellow**

- Often shrub-like, or as a small tree, 2 to 12 m tall
- Alternate leaves to 10 cm long, toothed and often with irregular lobes





## *Malus pumila* cultivated apple

Ecosystem Class:

Shrub

BC List Status: **Exotic**

- Alternate leaves with toothed margins, quite variable in size and shape
- A dense woolly fuzz is present on buds
- Mature inner bark is smooth and reddish in colour while the outer bark is grey and somewhat peeling





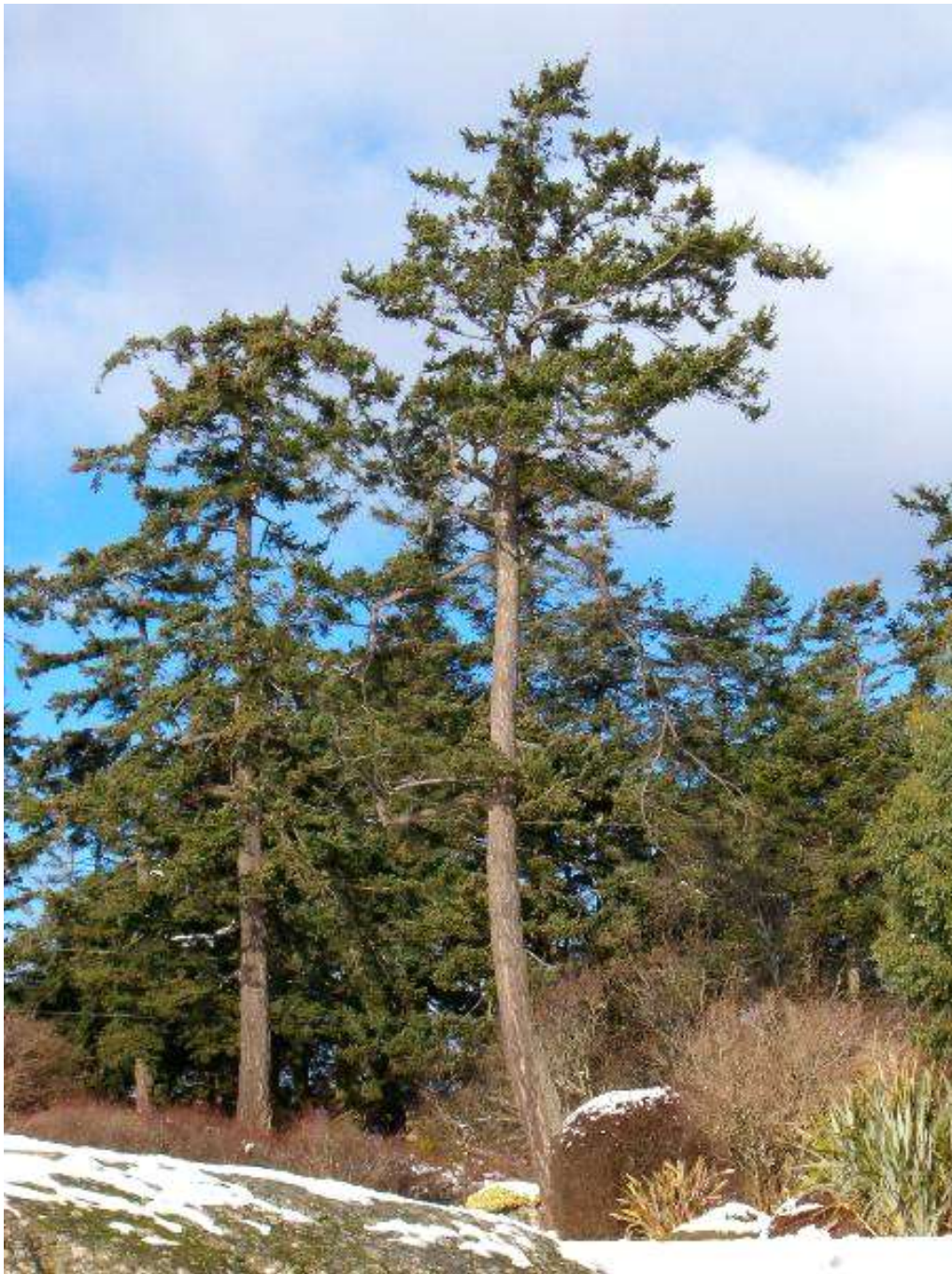
## *Prunus* sp. cherry

Ecosystem Class: Shrub

BC List Status: **Exotic** or **Yellow**, depending on species

- An unidentified species of *Prunus* has been inventoried on the peninsula which could be one of any number of species, such as *Prunus avium* (pictured bottom right) [exotic], *Prunus emarginata* (pictured at left) [native] or *Prunus virginiana* (pictured immediately below) [native]





*Psuedotsuga menziesii* var.  
*menziesii*

## Douglas-fir

Ecosystem Class: Shrub

BC List Status: **Yellow**

- Flat needles, 2 to 3 cm long, spirally arranged
- Seed cones 5 to 10 cm long (turns from green at flowering, to a reddish brown or grey)





***Rosa eglanteria***  
**sweetbrier**

Ecosystem Class: Shrub  
BC List Status: **Exotic**

- Shrub 1 to 3 m tall, often thicket-forming
- Spines variable (can be hooked or straight)
- Fruits (hips) ripen to a scarlet red





***Rosa nutkana***  
**Nootka rose**

Ecosystem Class: Shrub  
BC List Status: **Yellow**

- An often spindly shrub to 3m tall
- Pink flowers from 4 to 8cm across
- A pair of large prickles found at the base of each leaf





## *Symphoricarpos albus* common snowberry

Ecosystem Class: Shrub

BC List Status: **Yellow**

- A shrub from 0.5 – 2m tall
- Leaves are elliptical and are found directly across from each other (opposite) on stems
- Flowers are pinkish to white
- Fruits are white and are berry-like and are often found clustered on stems right through winter



# BC List Statuses

Species are assigned to one of four provincial lists depending on their Subnational Conservation Status. The lists are as follows (taken directly from the Conservation Data Centre, Province of British Columbia):

- **Extinct:** Species that no longer exist.
- **Red:** Includes any indigenous species or subspecies that have- or are candidates for- Extirpated, Endangered, or Threatened status in British Columbia. Extirpated taxa no longer exist in the wild in British Columbia, but do occur elsewhere. Endangered taxa are facing imminent extirpation or extinction. Threatened taxa are likely to become endangered if limiting factors are not reversed. Not all Red-listed taxa will necessarily become formally designated. Placing taxa on these lists flags them as being at risk and requiring investigation.
- **Blue:** Includes any indigenous species or subspecies considered to be of Special Concern (formerly Vulnerable) in British Columbia. Taxa of Special Concern have characteristics that make them particularly sensitive or vulnerable to human activities or natural events. Blue-listed taxa are at risk, but are not Extirpated, Endangered or Threatened.
- **Yellow:** Includes species that are apparently secure and not at risk of extinction. Yellow listed species may have Red- or Blue-listed subspecies.
- **No Status:** When all subspecies or populations of a species are assigned to either the Red List or the Blue List, the species will not be assigned to a List. For example, there are two populations of Western Painted Turtle in BC; one population is on the Red list, the other is on the Blue list. The species record for Western Painted Turtle is therefore not assigned to a list.
- **Exotic:** Species that have been moved beyond their natural range as a result of human activity. Exotic species are also known as alien species, foreign species, introduced species, non-indigenous species and non-native species. Exotic species are excluded from the Red, Blue and Yellow lists.
- **Accidental:** Species occurring infrequently and unpredictably, outside their usual range. Accidental species are excluded from the Red, Blue and Yellow list.



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