

# WETLAND PLANTS OF BRITISH COLUMBIA



*Field Guide to Indicator Species for Wetland Classification*

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## *Field Guide of Indicator Species to Wetland Classification*

Version 2

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February, 2024



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This project was supported through the Healthy Watersheds Initiative, which is delivered by the Real Estate Foundation of BC and Watersheds BC, with financial support from the Province of British Columbia as part of its \$10-billion COVID-19 response.

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# Introduction

The Wetland Plants of British Columbia is an introduction to the common indicator wetlands species that are used to classify ecosystems using the provincial Biogeoclimatic Ecosystem Classification System. It is intended to be used as a companion guide to the Wetlands of British Columbia: A Guide to Identification<sup>1</sup>, with the organization of this guide generally mirroring that of Wetlands of British Columbia.


Species accounts are organized by growth form (Trees, Shrubs, Forbs, Graminoids, and Ferns and Allies) with an exception for Graminoids which are further split into Sedges, Rushes, and Grasses. Each species includes a list of common wetland site associations. The restructuring of this document was conducted to ease the file size allowing for a more economical format for future printing purposes.

Each species account contains:

- Colour-coded headers that indicate the growth form of the species;
- Common and scientific names, based on those currently in use in provincial databases (if differing, the scientific name from Wetlands of BC is also included);
- Generalized distribution map of the species;
- Key characteristics of the species to aid in identification, with bold text indicating key information;
- Discussion of similar species, with important range, habitat, or morphological characteristics highlighted; and
- Photographs of the species, demonstrating key characteristics and (if applicable) those of similar species.

**TREES: Conifers**

**Western Redcedar**  
*Thuja plicata*



**Important Swamp Associations**


- Ws10 Western Redcedar – Spruce – Skunk Cabbage
- Ws52 Red Alder – Skunk Cabbage
- Ws53 Western Redcedar – Sword Fern – Skunk Cabbage
- Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage

**Key Characters**

- Flattened, spreading **branchlets with scale-like leaves**
- Small, **oval-shaped cones with the bract-like scales attached along a central column**
- Greyish bark that occurs in **long strips** when mature
- Primarily a species of **lower to middle elevations**

**Similar Species**

- **Yellow-cedar** occurs at **higher elevations** (some overlap with redcedar in middle elevations or at low elevations along the outer coast) and has **drooping branchlets** with small, **spherical cones** in which the **umbrella-shaped scales are all attached to a central point**



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<sup>1</sup> MacKenzie, W.H. and J.R. Moran. 2004. Wetlands of British Columbia: A Guide to Identification. Res. Br., B.C. Min. For., Victoria, B.C. Land Manage. Handb. No. 52.

## Species Names

Many scientific names of plants have changed in British Columbia since 2004 when the Wetlands of British Columbia guide was created (Table 1-1).

**Table 1-1. Species name updates since 2004**

<b>Common Name</b>	<b>Current Scientific Name</b>	<b>Wetlands of BC Scientific Name</b>
Alaska aster	<i>Symphotrichum subspicatum</i>	<i>Aster subspicatus</i>
black cottonwood	<i>Populus trichocarpa</i>	<i>Populus balsamifera</i> subsp. <i>trichocarpa</i>
bog cranberry	<i>Vaccinium oxycoccos</i>	<i>Oxycoccus oxycoccos</i>
deer-cabbage	<i>Nephrophyllidium crista-galli</i>	<i>Fauria crista-galli</i>
dwarf birch	<i>Betula glandulosa</i>	<i>Betula nana</i>
interior spruce	<i>Picea x albertiana</i>	<i>Picea X</i>
Labrador tea	<i>Rhododendron groenlandicum</i>	<i>Ledum groenlandicum</i>
Pacific willow	<i>Salix lasiandra</i>	<i>Salix lucida</i>
red elderberry	<i>Sambucus racemosa</i> var. <i>arborescens</i>	<i>Sambucus racemosa</i>
red-osier dogwood	<i>Cornus sericea</i>	<i>Cornus stolonifera</i>
Sitka burnet	<i>Sanguisorba stipulata</i>	<i>Sanguisorba canadensis</i>
sticky false asphodel	<i>Triantha glutinosa</i> and <i>T. occidentalis</i>	<i>Triantha glutinosa</i>
water smartweed	<i>Persicaria amphibia</i>	<i>Polygonum amphibium</i>
yellow pond-lily	<i>Nuphar polysepala</i>	<i>Nuphar lutea</i> subsp. <i>polysepala</i>
yellow-cedar	<i>Callitropsis nootkatensis</i>	<i>Chamaecyparis nootkatensis</i>

## Distribution Maps

The Ecoregions of BC were used as a basis for the generalized distribution maps that are provided with each species. The ecoregions were condensed into 14 bioregional zones (Figure 1-1) to serve as a visual reference for the distribution of a given species. Three of the zones (West Kootenays, East Kootenays, and Skeena-Nass) were further split into a northern and southern region, as species distributions within the Kootenays differ considerably between these areas.

These maps indicate the bioregional zones where a specific species is common, uncommon, or absent (Figure 1-2). Notable small populations that occur outside of the typical range of a species (e.g., yellow-cedar), are indicated by a black dot. Regions where a species is mapped as 'common' indicate that the species is widespread and can be dominant in wetlands within that region. In areas where it is mapped as 'uncommon,' the species is limited to specific habitats or subregions and, while it may be widespread in some localized areas, it is generally not a dominant species.



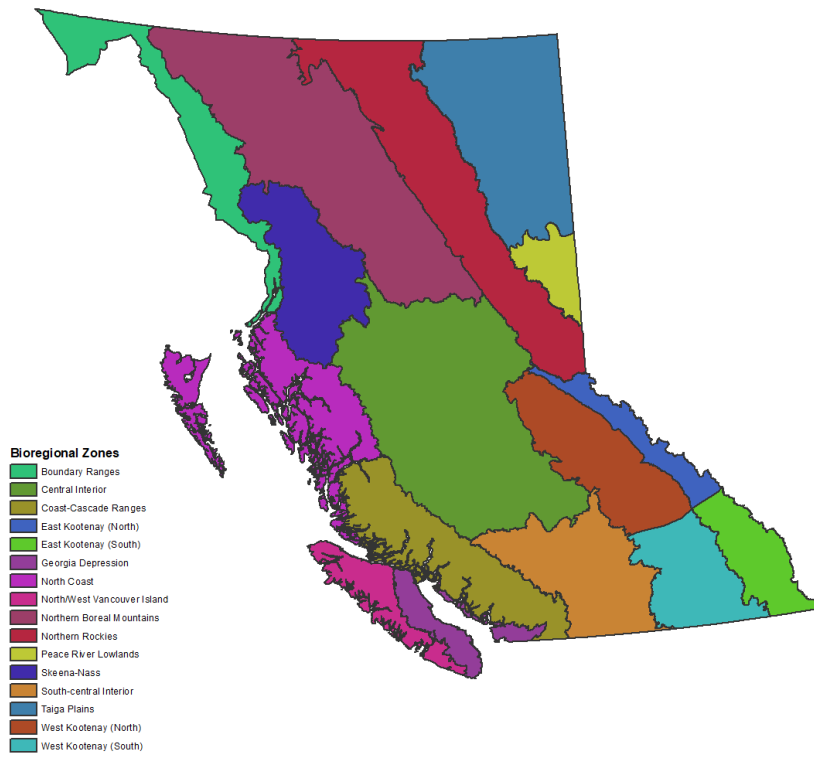


Figure 1-1. The bioregional zones of BC for wetland plants of british columbia

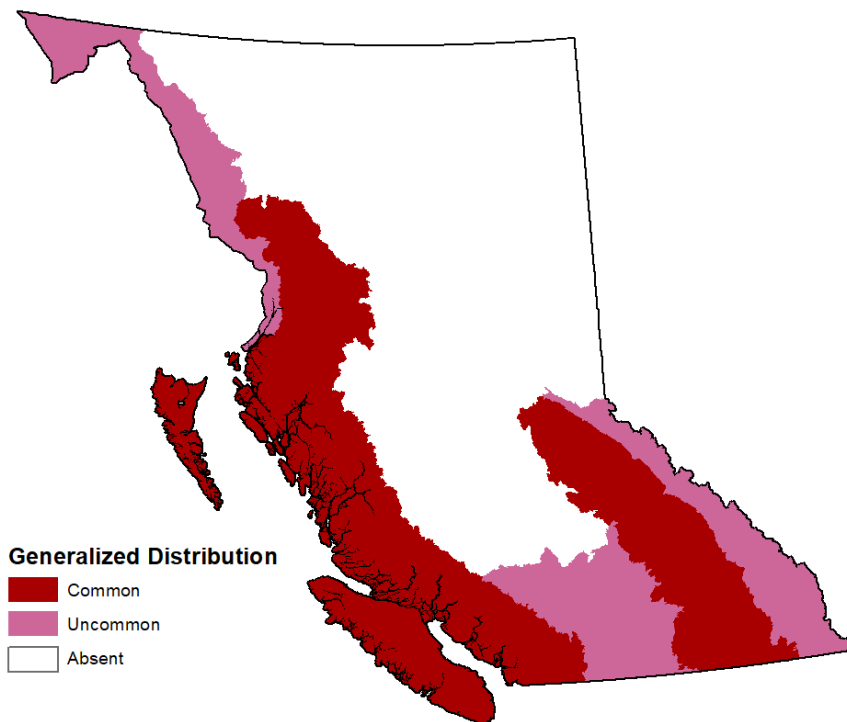


Figure 1-2. Example of a generalized distribution map

# 1. Trees



## Bigleaf Maple

*Acer macrophyllum*

### Wetland Site Associations

Ws52 Red Alder – Skunk Cabbage

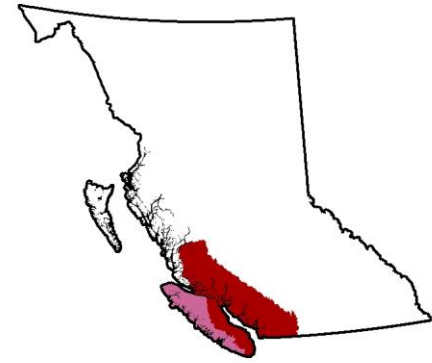
Ws53 Western Redcedar – Sword Fern – Skunk Cabbage

### Key Characters

- Restricted to **coastal regions** in southwest B.C.; low elevations
- Large tree
- Bark grey-brown, **narrowly furrowed** when mature
- Leaves **large, opposite, deeply palmately 5-lobed**  
Flowers appear in early spring, yellow, in **long drooping inflorescences**
- Fruits in pairs, **brownish, bristly-hairy**, each with a **single large, papery wing** (= 'samara') that **spread in a 'V'** when fruits still connected

### Similar Species

- Douglas Maple is a **large shrub or small tree**, with **smaller, less deeply 5-lobed leaves**, and **hairless reddish fruits**; it is widespread throughout the southern half of B.C.
- Vine Maple (*A. circinatum*) is a **medium-sized shrub to small tree** of southwestern B.C.; it has **smaller 9-lobed leaves**, and pairs of fruits with their **wings spreading** when still connected



## Amabilis Fir

*Abies amabilis*

### Wetland Site Associations

Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage

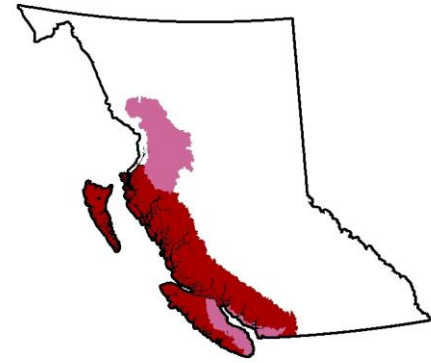
Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage

### Key Characters

- Canopy **broad and rounded** when mature
- **Soft, blunt-tipped needles** that are **directly attached to the twig** (no woody pegs at the base) and leave a **rounded scar** when shed
- Needles **dark green**, in **two series**: one series longer and spreading, the other series shorter and pointing forward along the top of the twig
- **Upright, dark purplish-brown cones** that occur high in the tree canopy and **disintegrate at maturity**
- Greyish-brown, **smooth bark**, with an abundance of **resin blisters** when young

### Similar Species

- Subalpine Fir has a **narrowly cylindrical canopy** and **upturned, often blue-tinged needles** that are **not arranged in two series**



## Subalpine Fir

*Abies lasiocarpa*

### Wetland Site Associations

- Ws08 Subalpine Fir – Sitka Valerian – Common Horsetail
- Ws09 Black Spruce – Skunk Cabbage – Peat-moss
- Ws10 Western Redcedar – Spruce – Skunk Cabbage
- Ws11 Spruce – Subalpine Fir – Skunk Cabbage
- Fm03 Pacific Willow – Red-osier Dogwood - Horsetail

### Key Characters

- Canopy **narrowly cylindrical** when mature
- **Soft, blunt-tipped needles** that are **directly attached to the twig** (no woody pegs at the base) and leave a **rounded scar** when shed
- Needles usually **turned upwards**, at least in the canopy
- **Upright, purplish-black cones** that occur high in the tree canopy and **disintegrate at maturity**
- Greyish-brown, **smooth bark**, with an abundance of **resin blisters** when young

### Similar Species

- Amabilis Fir has a **broader, rounder canopy** and **spreading (not upturned) needles in two series** (one longer series spreading, one shorter series pointing forward along the top of the twig)
- Spruces often have **stiffer, sharper needles** (except Black Spruce) and have **woody, peg-like bases** to the needles that **remain on the twig** after the needles are shed



## Red Alder

### *Alnus rubra*

#### Wetland Site Associations

- Ws52 Red Alder – Skunk Cabbage
- Ws53 Western Redcedar – Sword Fern – Skunk Cabbage
- Fl51 Red Alder – Salmonberry – Horsetail
- Fm50 Cottonwood – Red Alder – Salmonberry

#### Key Characters

- Restricted to **coastal regions** in B.C.; low elevations
- Medium-sized tree
- Bark **smooth, greyish, blotchy** (when mature)
- Leaves alternate, **unlobed, ovate, margins bluntly double-toothed, lateral veins regular and evenly spaced**
- Margins of leaves slightly **rolled under**
- Male flowers in drooping staminate catkins
- Fruits are **small, egg-shaped, woody, cone-like catkins**

#### Similar Species

- Mountain Alder is a **large shrub or small tree** and is almost entirely restricted to **interior areas** of British Columbia; the margins of the leaves are **flat** (not slightly rolled under)
- Sitka Alder (*A. alnobetula* subsp. *sinuata*) is a **medium-sized shrub** of **middle to high elevations**; the leaves are **sharply double-toothed**



## Yellow-cedar

### *Callitropsis nootkatensis*

(*Chamaecyparis nootkatensis*)

#### Wetland Site Associations

Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage

Wb51 Shore Pine – Crowberry – Tough Peat-moss

Wb52 Common Juniper – Tufted Clubrush – Rock moss

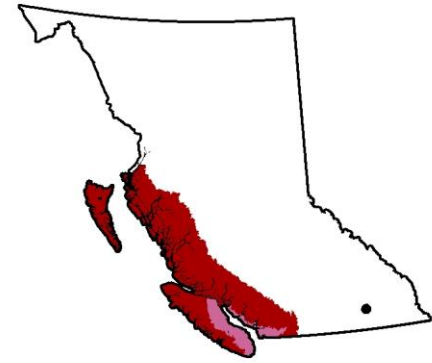
Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

#### Key Characters

- Flattened, **drooping branchlets** with **scale-like leaves**
- Small, **spherical cones** with the **umbrella-shaped scales all attached to a central point**
- Greyish bark that occurs in **long strips**
- Primarily a species of **upper elevations**

#### Similar Species

- Western Redcedar generally occurs at **lower elevations** and has **spreading branchlets** with small, **oval-shaped cones** in which the **bract-like scales are attached along a central column**



## Tamarack

*Larix laricina*

### Wetland Site Associations

Wb03 Black Spruce – Lingonberry – Peat-moss

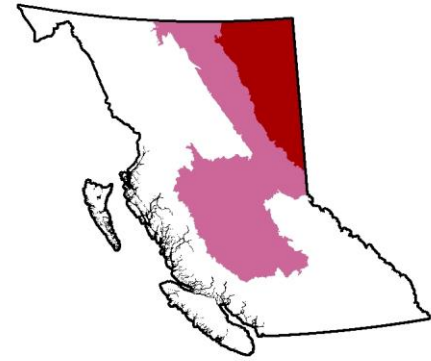
Wb06 Tamarack – Water Sedge – Fen moss

### Key Characters

- Needles **deciduous**, turning yellow in fall, borne in **lateral bunches on short woody shoots**
- Small, **egg-shaped cones** with rounded scales; **borne upright** along the branch

### Similar Species

- Highly distinctive; other species of *Larix* (larches) occur in southern British Columbia but do not overlap in range with Tamarack





## Interior Spruce

*Picea x albertiana* (*Picea X*)

### Wetland Site Associations

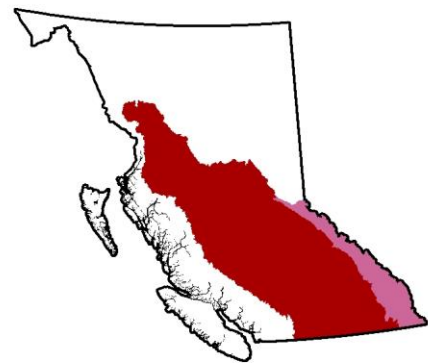
- Ws01 Mountain Alder – Skunk Cabbage – Lady Fern
- Ws07 Spruce – Common Horsetail – Leafy Moss
- Ws08 Subalpine Fir – Sitka Valerian – Common Horsetail
- Ws09 Black Spruce – Skunk Cabbage – Peat-moss
- Ws10 Western Redcedar – Spruce – Skunk Cabbage
- Ws11 Spruce – Subalpine Fir – Skunk Cabbage
- Wb04 Western Hemlock – Cloudberry – Peat-moss
- Wb07 Lodgepole Pine – Water Sedge – Peat-moss
- Wb08 Black Spruce – Soft-leaved Sedge – Peat-moss
- Fm02 Mountain Alder – Red-osier Dogwood – Lady Fern
- Fm03 Pacific Willow – Red-osier Dogwood – Horsetail

### Key Characters

- **Stiff, sharp needles**
- **Woody pegs at the base of the needles** that remain after the needles are shed
- **Oblong cones**; scales with somewhat **pointed tips**
- Greyish-brown, **scaly bark**
- Twigs **finely short-hairy**

### Similar Species

- Black Spruce has **shorter, softer, blunt-tipped needles**, smaller **egg-shaped cones with rounded scales**, and **more densely woolly-hairy twigs**; top of tree often forms a large, dense 'topknot'
- White Spruce (*Picea glauca*) replaces Interior Spruce in northern and northeastern BC; it has **shorter needles** (usually < 1.5 cm), **rounded cone scales**, and **hairless twigs**



## Black Spruce

### *Picea mariana*

#### Wetland Site Associations

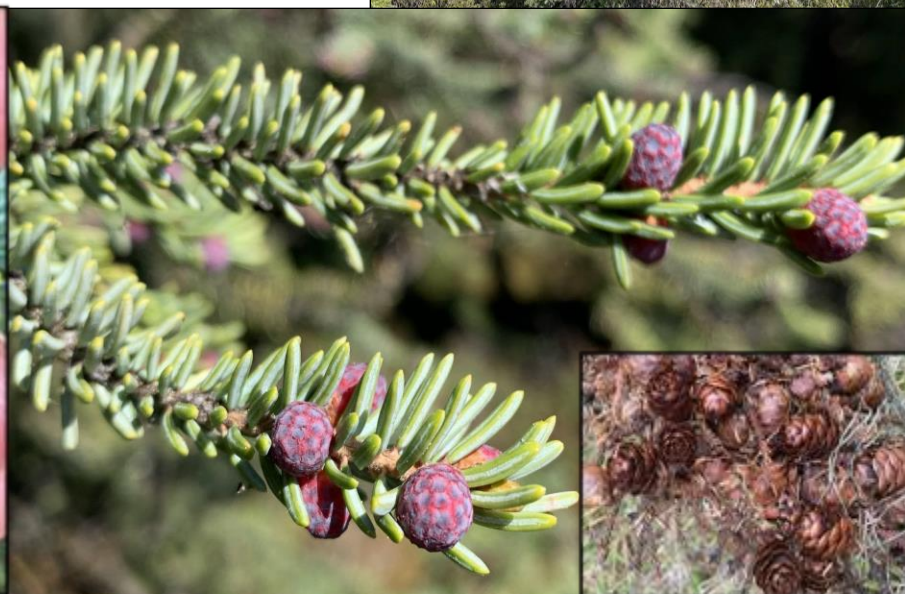
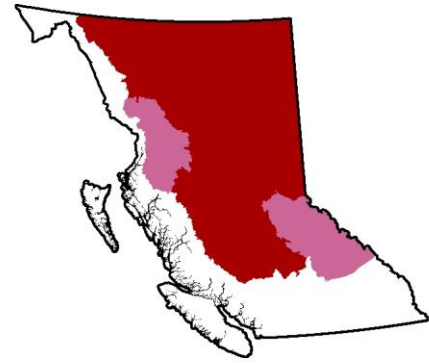
- Ws09 Black Spruce – Skunk Cabbage – Peat-moss
- Wb01 Black Spruce – Creeping Snowberry – Peat-moss
- Wb02 Lodgepole Pine – Bog-rosemary – Peat-moss
- Wb03 Black Spruce – Lingonberry – Peat-moss
- Wb05 Black Spruce – Water Sedge – Peat-moss
- Wb06 Tamarack – Water Sedge – Fen moss
- Wb08 Black Spruce – Soft-leaved Sedge – Peat-moss
- Wb09 Black Spruce – Common Horsetail – Peat-moss
- Wb11 Black Spruce – Buckbean – Peat-moss

#### Key Characters

- **Short, soft, blunt-pointed needles**
- **Woody pegs at the base of the needles** that remain after the needles are shed
- **Egg-shaped cones**; scales with **rounded tips**
- Greyish-brown, **scaly bark**
- Twigs **densely woolly-hairy**
- Crown of tree often forms **dense 'topknot'**

#### Similar Species

- Interior Spruce has **longer, stiffer, sharper needles**, longer **oblong cones with somewhat pointed scales**, and **less densely hairy twigs**
- White Spruce (*P. glauca*) usually has stiffer, sharper needles, longer **oblong cones**, and **hairless twigs**



## Sitka Spruce

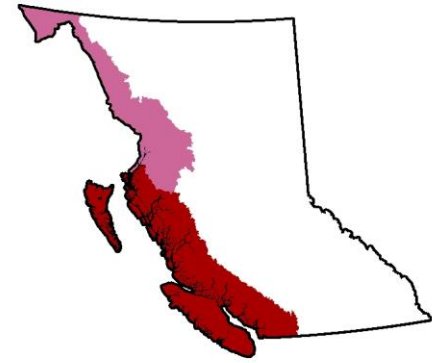
*Picea sitchensis*

### Wetland Site Associations

Ws53 Western Redcedar – Sword Fern – Skunk Cabbage

Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage

Fm50 Cottonwood – Red Alder - Salmonberry



### Key Characters

- Strictly **coastal** (absent from the interior)
- Often **very large trees**
- **Long, stiff, very sharp, bluish-green needles**
- **Woody pegs at the base of the needles** that remain after the needles are shed
- **Oblong cones**; scales with somewhat **pointed tips** and **jagged margins**
- Twigs **hairless**
- Greyish-brown, **scaly bark**

### Similar Species

- Interior Spruce is a species of **interior BC** (some overlap and hybridization with Sitka Spruce in west-central BC) with **short-hairy twigs**, shorter **green needles** (usually lacking blue tones), and **smaller cones**



## Shore Pine

*Pinus contorta* var. *contorta*

### Wetland Site Associations

Wb51 Shore Pine – Crowberry – Tough Peat-moss

Wb52 Common Juniper – Tufted Clubrush – Rock moss

Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

- Occurs only along the **coast of BC**
- Needles clustered towards branch tips, dark green, in **fascicles of 2**
- Cones short-cylindric to egg-shaped, in small clusters, **usually asymmetrical and recurved, remain on tree for many years after maturity**
- Cone scales with a **sharp, hooked prickle**

### Similar Species

- Lodgepole Pine is very similar, but is restricted to **interior regions**; it has more **symmetrical cones** that are **usually not recurved, longer and more yellow-green needles**, and **scaler, less deeply furrowed bark**



## Lodgepole Pine

*Pinus contorta* var. *latifolia*

### Wetland Site Associations

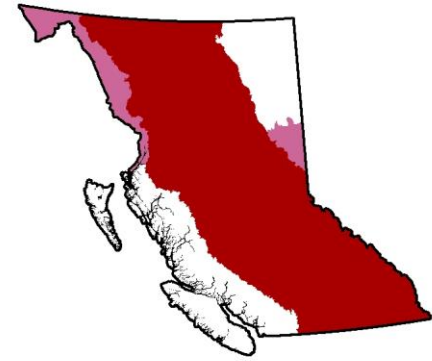
- Wb02 Lodgepole Pine – Bog-rosemary – Peat-moss
- Wb07 Lodgepole Pine – Water Sedge – Peat-moss
- Wb10 Lodgepole Pine – Few-flowered Sedge – Peat-moss
- Wb11 Black Spruce – Buckbean – Peat-moss

### Key Characters

- Occurs only in the **interior of BC**
- Needles clustered towards branch tips, yellow-green, in **fascicles of 2**
- Cones short-cylindric to egg-shaped, in small clusters, **usually perpendicular to branch, remain on tree for many years after maturity**
- Cone scales with a **sharp, hooked prickle**

### Similar Species

- Shore Pine is very similar, but is restricted to **coastal regions**; it has more **strongly asymmetrical and recurved cones, shorter and darker-green needles, and thicker and more deeply furrowed bark**



## Black Cottonwood

*Populus trichocarpa*

(*Populus balsamifera* ssp. *trichocarpa*)



### Wetland Site Associations

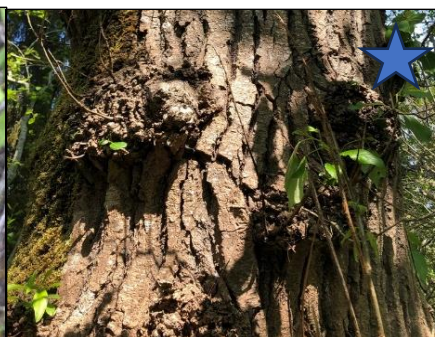
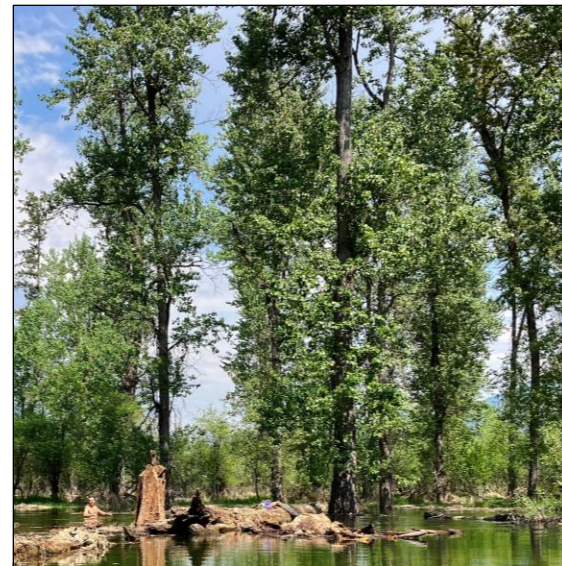
- Fl06 Sandbar Willow
- Fm01 Cottonwood – Snowberry - Rose
- Fm02 Cottonwood – Spruce – Red-osier Dogwood
- Fm03 Cottonwood – Subalpine Fir – Devil's-club
- Fm50 Cottonwood – Red Alder - Salmonberry

### Key Characters

- Medium-sized to **large trees**
- Young bark smooth; mature bark greyish-brown, thick, **deeply furrowed**
- Buds **strongly sweet-scented** and **covered in sticky gum** in spring
- Leaves medium-sized to **large, narrowly to broadly egg-shaped with a rounded or abruptly tapered base**, tip long-pointed
- Pistillate catkins **drooping**, of numerous **spherical, green capsules with 3 valves**
- At seed dispersal, produces copious amounts of air-dispersed seeds with a **white, cottony plume**

### Similar Species

- Balsam Poplar (*Populus balsamifera*) replaces Black Cottonwood in northeastern B.C.; it is very similar, but differs in its tendency for larger leaves to have a **more strongly tapered base**, as well as in its **2-valved capsules**. These two species hybridize extensively in northern B.C.; both are associated with similar ecosystems in their respective ranges.



## Western Redcedar

*Thuja plicata*

### Wetland Site Associations

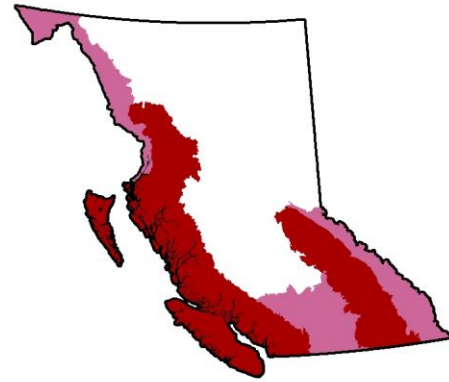
- Ws10 Western Redcedar – Spruce – Skunk Cabbage
- Ws52 Red Alder – Skunk Cabbage
- Ws53 Western Redcedar – Sword Fern – Skunk Cabbage
- Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage
- Wb51 Shore Pine – Crowberry – Tough Peat-moss
- Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

- Flattened, spreading **branchlets** with **scale-like leaves**
- Small, **oval-shaped cones** with the **bract-like scales** attached **along a central column**
- Greyish bark that occurs in **long strips** when mature
- Primarily a species of **lower to middle elevations**

### Similar Species

- Yellow-cedar occurs at **higher elevations** (some overlap with redcedar in middle elevations or at low elevations along the outer coast) and has **drooping branchlets** with small, **spherical cones** in which the **umbrella-shaped scales** are all attached to a **central point**



## Western Hemlock

*Tsuga heterophylla*

### Wetland Site Associations

Ws10 Western Redcedar – Spruce – Skunk Cabbage

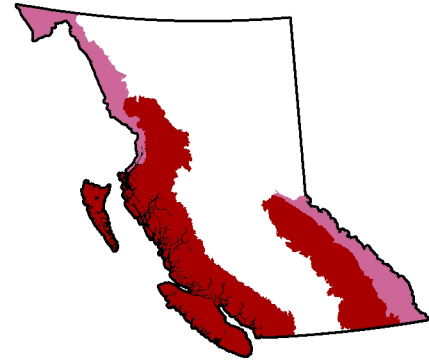
Wb04 Western Hemlock – Cloudberry – Peat-moss

### Key Characters

- Top of tree **nodding**
- Branches forming **flat sprays**
- Needles **short, variable in length**, with **woody pegs at the base** that remain on the twig after the needles are shed
- **Small, egg-shaped cones** (1.5-2.5 cm) with rounded scales
- Bark greyish-brown, **forming narrow plates**
- Primarily a species of **lower and middle elevations**

### Similar Species

- Mountain Hemlock occurs at **higher elevations** and has **longer, uniform-length needles on bushier branches** that are not arrayed in flat sprays; **cones longer, oblong**, 3-6 cm.





## Mountain Hemlock

*Tsuga mertensiana*

### Wetland Site Associations

Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage

### Key Characters

- Top of tree **nodding**
- Branches forming **bushy sprays**
- Needles **medium-length, uniform in length**, with **woody pegs at the base** that remain on the twig after the needles are shed
- **Medium-sized, oblong cones** (3–6 cm) with rounded scales
- Bark greyish-brown, **forming narrow plates**
- Primarily a species of **upper elevations**

### Similar Species

- Western Hemlock occurs at **low to middle elevations** and has **shorter, variable-length needles** on branches that are largely arrayed in flat sprays; **cones shorter, egg-shaped**, 1.5–2.5 cm.



## 2. Shrubs



## Douglas Maple

*Acer glabrum*

### Wetland Site Associations

Fm01 Cottonwood – Snowberry – Rose

### Key Characters

- Large shrub to small tree
- Leaves **opposite, palmately 5-lobed**, margins jagged-toothed
- Flowers **greenish-yellow**, in **small axillary clusters** of up to 10 flowers
- Fruits in pairs, yellowish-brown to reddish, **hairless**, each with a **single large, papery wing** (= 'samara') that **spreads in a 'V' or 'U'** when fruits still connected

### Similar Species

- Bigleaf Maple is a **large tree**, with **much larger, more deeply 5-lobed leaves**, and **bristly-hairy, brownish fruits**; it is restricted to southwestern B.C.
- Vine Maple (*Acer circinatum*) is a **medium-sized shrub to small tree** of southwestern B.C.; it has **9-lobed leaves**, and pairs of fruits with their **wings wide-spreading** when still connected



## Mountain Alder

### *Alnus incana*

#### Wetland Site Associations

- Ws01 Mountain Alder – Skunk Cabbage – Lady Fern
- Ws02 Mountain Alder – Hardhack – Sitka Sedge
- Ws03 Bebb’s Willow – Bluejoint
- Ws06 Sitka Willow – Sitka Sedge
- Ws07 Spruce – Common Horsetail – Leafy Moss
- Ws09 Black Spruce – Skunk Cabbage – Peat-moss
- Ws11 Spruce – Subalpine Fir – Skunk Cabbage
- Fl01 Mountain Alder – Common Horsetail
- Fl02 Mountain Alder – Red-osier Dogwood – Lady Fern
- Fl03 Pacific Willow – Red-osier Dogwood - Horsetail
- Fm02 Cottonwood – Spruce – Red-osier Dogwood
- Fm03 Cottonwood – Subalpine Fir – Devil’s-club



#### Key Characters

- Large shrub to **small tree**
- Largely restricted to **interior BC**
- Bark smooth, greyish-brown, with **whitish bumps** (‘lenticels’)
- Leaves alternate, **unlobed, ovate**, margins **bluntly double-toothed**, **lateral veins regular and evenly spaced**
- Margins of leaves **flat**
- Male flowers in drooping staminate catkins
- Fruits are **small, egg-shaped, woody, cone-like catkins** that are **persistent through winter**

#### Similar Species

- Sitka Alder (*A. alnobetula* subsp. *sinuata*) usually occurs at **higher elevations** (although much overlap); it is a **smaller shrub** with leaves that are **sharply single- to double-toothed** and **longer, more slender stalks** to the ‘cones’
- Red Alder is strictly a **coastal species**; it is a **taller tree** with the margins of the leaves somewhat **rolled under**



## Bog-rosemary

### *Andromeda polifolia*

#### Wetland Site Associations

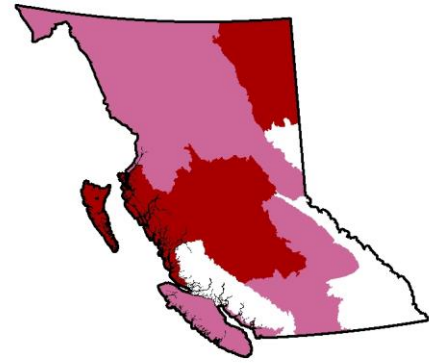
- Wf10 Hudson Bay Clubrush – Red Hook-moss
- Wb02 Lodgepole Pine – Bog-rosemary – Peat-moss
- Wb12 Scheuchzeria– Peat-moss
- Wb52 Common Juniper – Tufted Clubrush– Rock moss

#### Key Characters

- **Small shrub** with erect stems
- Leaves alternate, **evergreen, leathery**, hairless, **linear or lanceolate** and with the **margins strongly rolled under**, underside with a **waxy white coating**
- Flowers in **small clusters at stem tips**, pinkish to nearly white, **urn-shaped, long-stalked, often nodding**
- Fruits small, erect, pinkish-red, **5-lobed capsules**

#### Similar Species

- Western Bog-laurel has larger, brighter pink, cup-shaped flowers with triangular bumps on the outside of the corolla, as well as broader, elliptic leaves



## Dwarf Birch

### *Betula glandulosa*

(*Betula nana*)

#### Wetland Site Associations

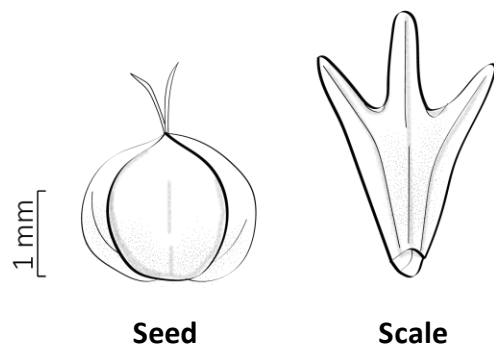
- Wf02 Scrub Birch – Water Sedge
- Wf07 Scrub Birch – Buckbean – Shore Sedge
- Wb02 Lodgepole Pine – Bog-rosemary – Peat-moss
- Wb05 Black Spruce – Water Sedge – Peat-moss
- Wb06 Tamarack – Water Sedge – Fen moss
- Wb07 Lodgepole Pine – Water Sedge – Peat-moss
- Wb08 Black Spruce – Soft-leaved Sedge – Peat-moss
- Wb09 Black Spruce – Common Horsetail – Peat-moss
- Wb10 Lodgepole Pine – Few-flowered Sedge – Peat-moss
- Wb11 Black Spruce – Buckbean – Peat-moss

#### Key Characters

- **Low to medium-sized shrub**
- Twigs usually **short-hairy** (sometimes hairless) with numerous **prominent warty glands**
- Leaves **small** (0.5–3 cm), **nearly round to oval**, with **large blunt teeth along entire margin**
- Male flowers in small, drooping catkins at branch tips
- Female catkins **small** (1–0.5 cm), erect, oblong to elongate, **comprised of numerous 3-pronged scales** and **papery-winged seeds**

#### Similar Species

- Swamp Birch (*B. pumila*) is very similar and often co-occurs with Dwarf Birch, but differs in its larger size, **hairless to sparsely hairy twigs**, and **larger leaves** (2.5–6+ cm); these two species commonly hybridize, and many populations are difficult to identify with certainty.



Seed

Scale



## Water Birch

### *Betula occidentalis*

#### Wetland Site Associations

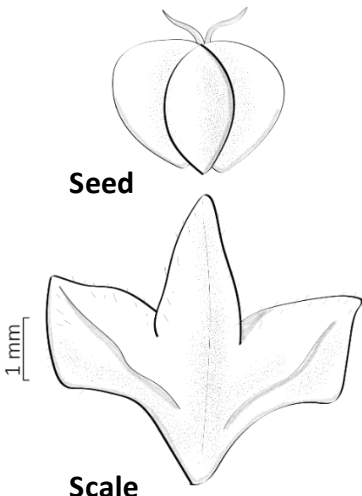
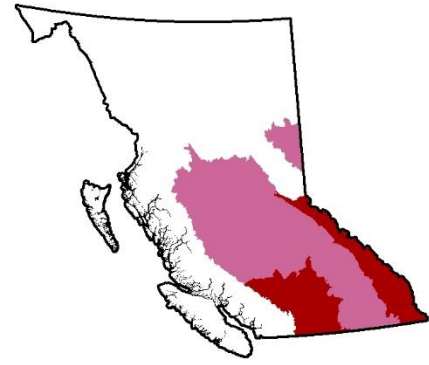
FI07 Water Birch – Rose

#### Key Characters

- Large shrub to **small tree**, usually multi-stemmed
- Bark **dark brown with pale spots** ('lenticels') when young, **remaining dark purplish-brown** at maturity
- Leaves alternate, **unlobed, ovate**, margins **coarsely sharp-toothed**
- Male flowers in drooping staminate catkins
- Female catkins small (2–3 cm), erect to drooping, cylindrical, composed of numerous **broadly 3-pronged scales** and **papery-winged seeds**

#### Similar Species

- Paper Birch (*B. papyrifera*) is generally a **larger tree** with a **single main trunk**, even when young; the **bark is distinctly whitish, papery, and peeling** when mature and the fruit scales are nearly **cross-shaped**



## Red-osier Dogwood

### *Cornus sericea*

(*Cornus stolonifera*)

#### Wetland Site Associations

- Ws03 Bebb's Willow – Bluejoint
- Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage
- Fl02 Mountain Alder – Red-osier Dogwood – Lady Fern
- Fl03 Pacific Willow – Red-osier Dogwood – Horsetail
- Fl04 Sitka Willow – Red-osier Dogwood – Horsetail
- Fl07 Water Birch – Rose
- Fl51 Red Alder – Salmonberry – Horsetail
- Fm01 Cottonwood – Snowberry – Rose
- Fm02 Cottonwood – Spruce – Red-osier Dogwood
- Fm03 Cottonwood – Subalpine Fir – Devil's-club
- Fm50 Sitka Willow – False Lily-of-the-valley

#### Key Characters

- Medium-sized shrub
- Branches and **twigs bright red** when mature
- Leaves **opposite**, short-stalked, egg-shaped with a pointed tip; veins distinctive, **becoming parallel to the margins**
- Flowers small, white, **produced in dense flat-topped clusters**
- Berries **small, white**, single-seeded

#### Similar Species

- Highly distinctive; other dogwoods in B.C. **lack the red twigs**, have smaller, denser flower clusters backed by **large, white, petal-like bracts**, and are either **herbaceous** (i.e., bunchberries) or **trees** (i.e., *Cornus nuttallii*)





## Copperbush

### *Elliottia pyroliflora*

#### Wetland Site Associations

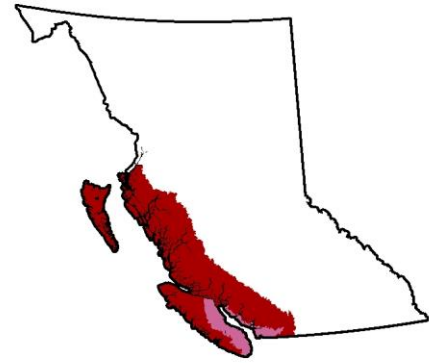
Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage

#### Key Characters

- Medium-sized shrub
- Branches usually **erect**
- Leaves deciduous, pale green, **hairless**, and covered with a **waxy bloom, broadest near the tip**
- Flowers distinctive, with **5 spreading, salmon-coloured petals** and a **strongly recurved style**
- Fruits are small, round capsules with a **recurved style** when young

#### Similar Species

- White-flowered Rhododendron (*Rhododendron albiflorum*) is easily distinguished when flowering by its large, funnel-shaped, white corollas; when not flowering, it is distinguished by its **shinier leaves with fine rusty hairs above**
- False-azalea (*Rhododendron ferruginea*) is similar when not flowering, but has **strongly skunky-scented leaves** that are often **blue-tinged**



## Black Crowberry

*Empetrum nigrum*

### Wetland Site Associations

- Wb04 Western Hemlock – Cloudberry – Peat-moss
- Wb07 Lodgepole Pine – Water Sedge – Peat-moss
- Wb51 Shore Pine – Crowberry – Tough Peat-moss
- Wb52 Common Juniper – Tufted Clubrush – Rock moss
- Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

- Low, spreading shrub; stems hairy
- Leaves **evergreen**, short, usually in **whorls of 4**, margins rolled under, **resembling conifer needles**
- Flowers **tiny, short-stalked, inconspicuous, reddish-purple**, in small groups in leaf axils
- Fruits **shiny, black, spherical berries** in small clusters

### Similar Species

- Mountain-heathers (*Phyllodoce* spp.) have similar conifer-like leaves, but are slightly large plants with **longer leaves** and clusters of **long-stalked, urn-shaped, nodding, pink or yellowish-white flowers** at the stem tips; the fruits are **small capsules**, and one species (*P. glanduliflora*) is **densely sticky-glandular** throughout the inflorescence



## Creeping-snowberry

*Gaultheria hispidula*

### Wetland Site Associations

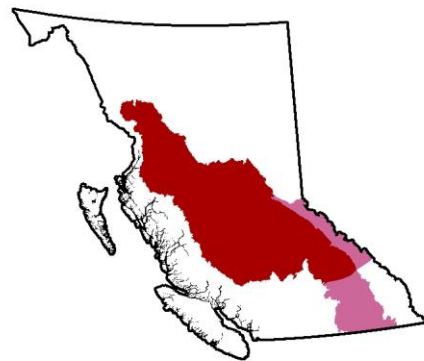
Wb01 Black Spruce – Creeping-snowberry – Peat-moss

### Key Characters

- **Mat forming**; stems **creeping, thread-like**, densely covered with **coarse, appressed, rusty-brown hairs**
- Leaves alternate, **small (< 1 cm)**, **evergreen, leathery, egg-shaped or elliptic**, **margins rolled under and without teeth**, with **scattered coarse rusty hairs on both surfaces**
- Flowers few, **tiny, inconspicuous, solitary** in leaf axils, usually not evident from above
- Flowers **bell-shaped**, with 4 fused petals, **whitish, sepals coarsely brown-hairy**
- Fruits **berry-like, small, oblong, white**, with scattered **coarse rusty-brown hairs**; fruits have a faint **wintergreen** flavor when eaten

### Similar Species

- Twinflower (*Linnaea borealis*) is somewhat similar when not flowering or fruiting, but has **larger, oblanceolate leaves** and **lacks coarse reddish-brown hairs** on the stems, leaves, and sepals



## Salal

### *Gaultheria shallon*

#### Wetland Site Associations

Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage

#### Key Characters

- Medium-sized, **evergreen** shrub
- Leaves **broadly egg-shaped, leathery**, dark green; leaf margins **finely toothed**
- Flowers produced along **red, sticky-glandular** stem tips
- Corollas **whitish to pale pink, almost globular**; sepals **red, sticky-glandular**
- Fruits berry-like, **purplish-black, sticky-glandular**, with a short, persistent style

#### Similar Species

- Evergreen Huckleberry (*Vaccinium ovatum*) often occurs with Salal on Vancouver Island; it has **smaller, narrower, more coarsely toothed** leaves with **more pointed apices** and is **not sticky-glandular** in the inflorescence



## Common Juniper

*Juniperus communis*

### Wetland Site Associations

Wb52 Common Juniper – Tufted Clubrush – Rock moss

Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

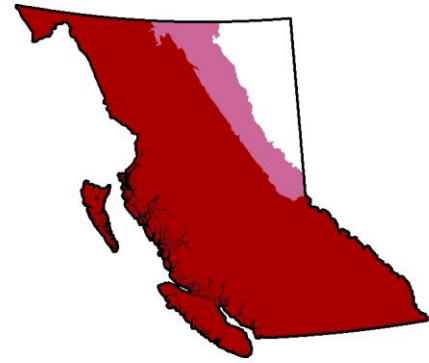
- **Low, spreading coniferous shrub**
- Needles abundant, dense, **curved, sharp-pointed, with prominent white lines of stomata on upper surface**
- Produces small, **bluish-purple** (when mature), **fleshy, berry-like cones**

### Similar Species

- Highly distinctive; other species of *Juniperus* occur only in upland habitats and have scale-like (vs. needle-like) mature leaves



## Western Bog-laurel *Kalmia microphylla*



### Wetland Site Associations

- Wf50 Narrow-leaved Cotton-grass – Peat-moss
- Wb02 Lodgepole Pine – Bog-rosemary – Peat-moss
- Wb04 Western Hemlock – Cloudberry – Peat-moss
- Wb10 Lodgepole Pine – Few-flowered Sedge- Peat-moss
- Wb12 Scheuchzeria – Peat-moss
- Wb13 Shore Sedge – Buckbean – Peat-moss
- Wb50 Labrador-tea – Bog-laurel – Peat-moss
- Wb51 Shore Pine – Crowberry – Tough Peat-moss
- Wb52 Common Juniper – Tufted Clubrush – Rock moss
- Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

- **Small shrub** with **erect branches**
- Leaves alternate, **evergreen, leathery, hairless, narrowly egg-shaped to elliptic** with **tapering bases, shiny dark green above** and with a **waxy white coating below**
- Flowers in clusters at stem tips, **pink, shallowly cup-shaped** with **fused petals, stamens tucked into pockets** on inside of corolla when young; unopened flowers with a series of **hooked or triangular bumps along outer surface of corolla**
- Fruits small, reddish-brown, **5-lobed capsules** at **end of previous year's growth**

### Similar Species

- Bog-rosemary has **narrower, almost linear leaves** that are **strongly inrolled**, as well as **smaller urn-shaped flowers**
- Labrador Tea is similar when not flowering, but its **leaves are densely hairy below** (white-hairy when young, rusty-hairy when mature)



## Black Twinberry *Lonicera involucrata*

### Wetland Site Associations

- Ws01 Mountain Alder – Skunk Cabbage – Lady Fern
- Ws03 Bebb's Willow - Bluejoint
- Ws07 Spruce – Common Horsetail – Leafy Moss
- Ws11 Spruce – Subalpine Fir – Skunk Cabbage
- Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage
- Wb07 Lodgepole Pine – Water Sedge – Peat-moss
- Fl01 Mountain Alder – Common Horsetail
- Fl02 Mountain Alder – Red-osier Dogwood – Lady Fern
- Fl04 Sitka Willow – Red-osier Dogwood – Horsetail
- Fl05 Drummond's Willow – Bluejoint
- Fm02 Cottonwood – Spruce – Red-osier Dogwood
- Fm50 Cottonwood – Red Alder – Salmonberry

### Key Characters

- Medium-sized shrub; branches quite erect
- Leaves **opposite**, short-stalked, lanceolate, apex pointed
- Flowers in **pairs, yellow, tubular, glandular**; flower pairs **backed by two large, glandular, reddish bracts**
- Fruits **pairs of shiny black berries** within retained reddish bracts

### Similar Species

- This species is easily recognized in flower or fruit; other species with similar leaves (e.g., cherries [*Prunus*]) produce **alternate leaves**.



## Sweet Gale

*Myrica gale*

### Wetland Site Associations

- Wf52 Sweet Gale – Sitka Sedge
- Wf53 Slender Sedge – White Beak-rush
- Wb50 Labrador Tea – Bog-laurel – Peat-moss
- Wb51 Shore Pine – Crowberry – Tough Peat-moss
- Wb52 Common Juniper – Tufted Clubrush – Rock moss



### Key Characters

- Low to medium-sized shrub
- **Flowers appear before leaves** in spring
- Leaves **strongly spicy-scented**, oblanceolate, **base long-tapering, apex rounded to blunt, margins coarsely toothed on outer half**
- Male flowers produced in short, erect, **coppery-brown, stalkless catkins** with **papery scales**
- Female catkins short, erect, **yellowish-green, 'spiky', numerous on erect leafless stems**

### Similar Species

- Hardhack can be similar to Sweet Gale when not fruiting or flowering; it is usually a larger shrub with larger, **greener, unscented leaves** with **less strongly tapering bases**





## Devil's-club

*Oplopanax horridus*

### Wetland Site Associations

Fm03 Cottonwood – Subalpine Fir – Devil's-club

Fm50 Cottonwood – Red Alder – Salmonberry

### Key Characters

- Medium-sized to large shrub
- Stems thick, stout, **few-branched, covered in numerous long, sharp prickles**
- Leaves clustered at the stem tips, **very large, palmately lobed, with numerous sharp spines** (especially along veins and the leaf stalk)
- Flowers small, **greenish, in tall, erect, conical clusters** at branch tips
- Fruits **bright red berries** in tall, erect clusters

### Similar Species

- This is among the most easily recognizable plant species in British Columbia, and is unlikely to be misidentified.



## Labrador Tea

### *Rhododendron groenlandicum*

(*Ledum groenlandicum*)



#### Wetland Site Associations

- Wb01 Black Spruce – Creeping Snowberry – Peat-moss
- Wb02 Lodgepole Pine – Bog-rosemary – Peat-moss
- Wb03 Black Spruce – Lingonberry – Peat-moss
- Wb05 Black Spruce – Water Sedge – Peat-moss
- Wb06 Tamarack – Water Sedge – Fen moss
- Wb08 Black Spruce – Soft-leaved Sedge – Peat-moss
- Wb09 Black Spruce – Common Horsetail – Peat-moss
- Wb11 Black Spruce – Buckbean – Peat-moss

#### Key Characters

- Small, **evergreen** shrub; widespread throughout B.C.
- Leaves oblong, **leathery, margins rolled under** (often strongly), **underside with dense woolly, whitish (juvenile) or reddish (mature) hairs**
- Flowers **white**, 5-petaled, in clusters at end of current years growth
- Fruits **small capsules**; old fruits usually retained at end of previous year's growth

#### Similar Species

- Trapper's Tea (*R. columbianum*) is similar, but is **restricted to the southern interior**; it has **broader, flatter leaves with sparsely hairy, gland-dotted lower surfaces**



## Stink Currant

*Ribes bracteosum*

### Wetland Site Associations

Ws52 Red Alder – Skunk Cabbage

Fl51 Red Alder – Salmonberry – Horsetail

### Key Characters

- Medium-sized to tall shrub (to 3 m)
- Entire plant **strongly skunky-scented**; often detectable from several metres away
- Leaves large, **palmately 5- to 7-lobed** with pointed lobes
- Flowers **white to greenish-white or bronzy**, produced in **long, erect clusters of 20–40 flowers**
- Berries in long clusters, bluish-black with a **strong whitish bloom**, appearing pale blue

### Similar Species

- Thimbleberry is superficially similar when not flowering or fruiting, but has **more broadly lobed leaves** and is **unscented**
- Trailing Black Currant (*Ribes laxiflorum*) is a **low, often trailing shrub** with **smaller 5-lobed leaves** and **smaller clusters of pinkish flowers**; it is **unscented**



## Prickly Rose

*Rosa acicularis*

### Wetland Site Associations

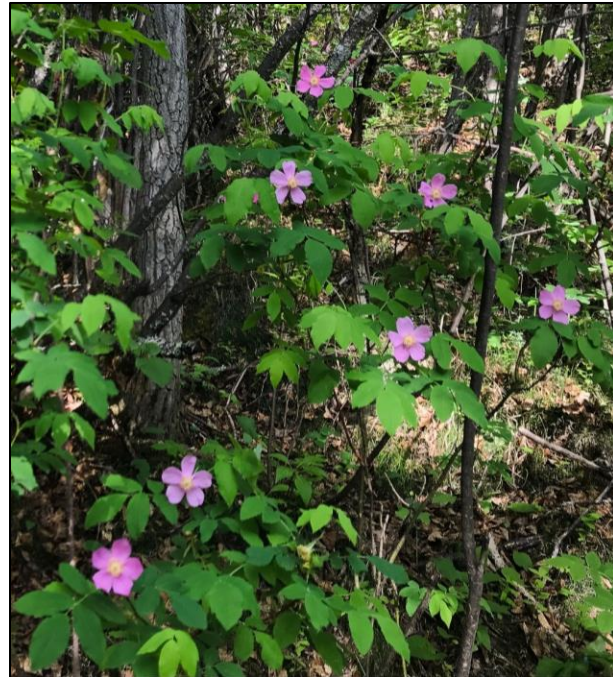
Fm03 Cottonwood – Subalpine Fir – Devil’s-club

### Key Characters

- Medium-sized shrub
- Main stems densely prickly **with small, bristly prickles throughout, lacking larger paired prickles below the leaf nodes**; outer **twigs bristly-prickly**
- Leaves alternate, **compound**; leaflets 5–7, pale green, usually **broadest at or below the midpoint**, margins coarsely toothed and with **stalked glands**
- Flowers light pink, **solitary** (rarely paired), with 5 large shallowly 2-lobed petals
- Fruits **rosehips**, orange-red to red, **pear-shaped to somewhat elongate, usually tapered at each end**

### Similar Species

- Prairie Rose has **outer twigs lacking bristly prickles**, has **enlarged pairs of prickles below the leaf nodes**, leaflets that are usually **widest above the midpoint** and **lack glands** along their toothed margins, flower clusters of **3–12 flowers**, and **rounder fruits**
- Nootka Rose lacks **small, bristly stem prickles** but has scattered **larger, thick, flattened prickles**.



## Nootka Rose

*Rosa nutkana*

### Wetland Site Associations

Fm01 Cottonwood – Snowberry – Rose

### Key Characters

- Medium-sized to large shrub
- Main stems **lacking small, bristly prickles** but with scattered **large, stout, flattened prickles**
- Leaves alternate, **compound**; leaflets 5–7, pale green, usually **broadest at or below the midpoint**, margins coarsely toothed and with **stalked glands**
- Flowers light pink, **solitary** (rarely paired), with 5 large shallowly 2-lobed petals
- Fruits **large rosehips**, orange-red to red, **nearly globular**

### Similar Species

- Prairie Rose has **bristly-prickly stems and branches** with **scattered pairs of enlarged pairs of prickles below the leaf bases**, leaflets that are usually **broadest above the midpoint**, and **flowers and fruits in clusters of 3–12**
- Prickly Rose has fully **bristly-prickly stems and twigs**, **lacks large stout prickles**, and has **smaller, pear-shaped to elongate fruits**



## Prairie Rose

*Rosa woodsii*

### Wetland Site Associations

F107 Water Birch – Rose

### Key Characters

- Medium-sized shrub
- Main stems densely prickly **with small, bristly prickles throughout** and **larger, paired prickles below the leaf nodes**; **outer twigs lacking bristly prickles**
- Leaves alternate, **compound**; leaflets 5–7, pale green to **blue-green**, usually **broadest above the midpoint**, margins coarsely toothed and **lacking glands**
- Flowers light pink, in **clusters of 3–12**, with 5 large shallowly 2-lobed petals
- Fruits **rosehips**, orange-red to red, **nearly globular to somewhat pear-shaped**

### Similar Species

- Prickly Rose has bristly-prickly **stems and outer twigs that lack enlarged pairs of prickles**, leaflets that are **widest at or below midpoint** and have **small glands** along their toothed margins, **solitary** (rarely paired) flowers, and more **elongate fruits**
- Nootka Rose lacks **small, bristly stem prickles** but has scattered **large, thicker, flattened prickles**, and produces **solitary** (rarely paired) flowers



## Cloudberry

*Rubus chamaemorus*

### Wetland Site Associations

Wb02 Lodgepole Pine – Bog-rosemary – Peat-moss

Wb03 Black Spruce – Lingonberry – Peat-moss

Wb04 Western Hemlock – Cloudberry – Peat-moss

Wb51 Shore Pine – Crowberry – Tough Peat-moss

### Key Characters

- Small; **stems usually buried in the substrate**, and **plant appearing herbaceous**
- Leaves **1-3 per flowering stem**, **shallowly palmately 5-lobed** with **rounded lobes**, margins blunt-toothed
- Flowers **solitary at stem tip**, with **5 spreading white petals** alternating with triangular green sepals; stamens **numerous, yellowish**
- Fruits **raspberry-like, yellowish to orange or orange-red**, subtended by **persistent sepals**

### Similar Species

- Arctic Raspberry (*R. arcticus*) is similar in size and structure, but usually has **trifoliate leaves** (sometimes palmately lobed), **magenta-pink petals**, and **dark red raspberry-like fruits**



## Thimbleberry

*Rubus parviflorus*

### Wetland Site Associations

Fl51 Red Alder – Salmonberry – Horsetail  
Fm03 Cottonwood – Subalpine Fir – Devil's-club

### Key Characters

- Medium-sized shrub
- Bark light brown; stems **lacking prickles**
- Leaves alternate, large, **palmately 5- 7 lobed**
- Flowers relatively **large**, with **5 rounded white petals**; flower stalks **glandular-hairy**
- Fruits **raspberry-like** (but somewhat flatter), soft, **red**, subtended by 5 spreading sepals, easily detached from the receptacle when ripe

### Similar Species

- Highly distinctive through a combination of its leaf, flower, and fruit characteristics; other *Rubus* species differ conspicuously in one or more of these characters.





## Red Elderberry

*Sambucus racemosa* var. *arborescens*

### Wetland Site Associations

- Ws52 Red Alder – Skunk Cabbage
- Ws53 Western Redcedar – Sword Fern – Skunk Cabbage
- Fl02 Mountain Alder – Red-osier Dogwood – Lady Fern
- Fm03 Cottonwood – Subalpine Fir – Devil's-club
- Fm50 Sitka Willow – False Lily-of-the-valley

### Key Characters

- Large shrub to small tree
- Twigs with **prominent raised bumps** and a **large, spongy pith**
- Leaves **opposite**, large, pinnate with **5–7 lance-shaped leaflets**; leaflet margins **coarsely toothed**
- Flowers **small, white**, numerous in **egg-shaped clusters** that are **longer than wide**
- Produces **rounded or oblong** clusters of small, shiny, **bright red berries**

### Similar Species

- Black-berried Elderberry (*S. racemosa* var. *melanocarpa*) occurs at **higher elevations** in the **southern interior** and has **rounded flower/fruit clusters** that are **as wide as long**, as well as **black berries**. It occurs in similar environments as Red Elderberry, and they sometimes intergrade.
- Blue Elderberry (*S. cerulea*) is a **small tree of upland habitats**; it has **larger, flat clusters of flowers** and **small, pale blue berries**.



var. *melanocarpa*



## Salmonberry

### *Rubus spectabilis*

#### Wetland Site Associations

- Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage
- Ws52 Red Alder – Skunk Cabbage
- Ws53 Western Redcedar – Sword Fern – Skunk Cabbage
- Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage
- Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage
- Fl50 Red Alder – Salmonberry – Horsetail
- Fl51 Red Alder – Salmonberry – Horsetail
- Fm50 Sitka Willow – False Lily-of-the-valley



#### Key Characters

- Medium-sized shrub
- Often forming dense stands with **erect stems**
- Bark **light brown**; stems covered in **fine, bristly prickles**
- Leaves alternate, dark green, with **3 coarsely toothed leaflets**
- Flowers appearing in early spring, **before the leaves**
- Petals 5, large, spreading, **bright magenta-pink**
- Fruits **raspberry-like**, soft, juicy, **yellow to red or purplish-red** (often on the same shrub); fruits ripen in **early summer**

#### Similar Species

- Highly distinctive at all seasons through a combination of its branch, leaf, flower, and fruit characteristics; other *Rubus* species differ conspicuously in one or more of these characters.



## Hardhack

### *Spiraea douglasii*

#### Wetland Site Associations

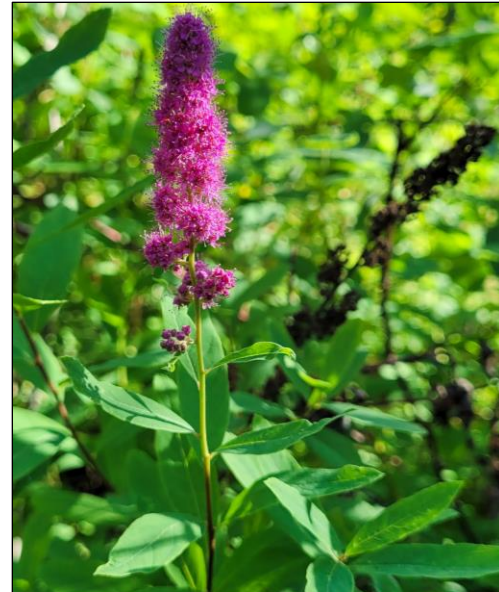
- Ws01 Mountain Alder – Skunk Cabbage – Lady Fern
- Ws02 Mountain Alder – Hardhack – Sitka Sedge
- Ws09 Black Spruce – Skunk Cabbage – Peat-moss
- Ws11 Spruce – Subalpine Fir – Skunk Cabbage
- Ws50 Hardhack – Sitka Sedge
- Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage
- Wf52 Sweet Gale – Sitka Sedge
- Wm50 Sitka Sedge – Water-parsley

#### Key Characters

- Medium-sized shrub
- Often forming dense stands with **erect stems**
- Bark **reddish-brown, woolly**
- Leaves alternate, oblong, with **coarsely toothed margins towards the tip**; lower **surface paler and often grey-woolly**
- Flowers small, **pink**, produced in **erect, conical clusters** at the branch tips
- Fruits are small brown capsules; **remain on the stem throughout the winter** following seed dispersal

#### Similar Species

- Subalpine Spiraea (*S. splendens*) is occasional at **high elevations** in southern B.C.; it is a **smaller shrub** with smaller, **flat-topped** clusters of pink flowers. Other *Spiraea* species have **white to pinkish-white flowers**.
- Sweet Gale has **hairless, blue-tinged leaves** with a **long-tapering base**; the leaves are **strongly spicy-scented**



*Spiraea splendens*



## Common Snowberry *Symphoricarpos albus*

### Wetland Site Associations

Fl07 Water Birch – Rose

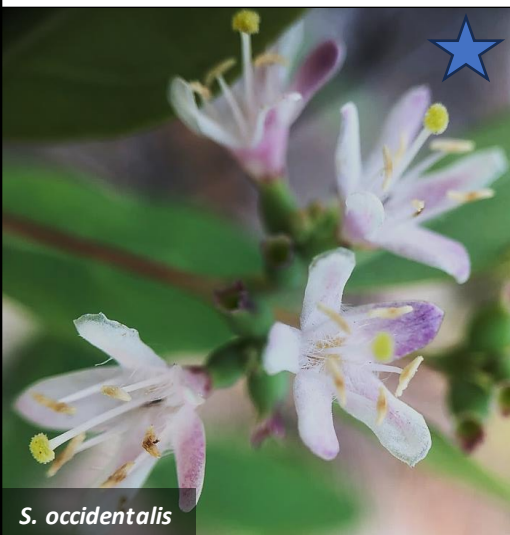
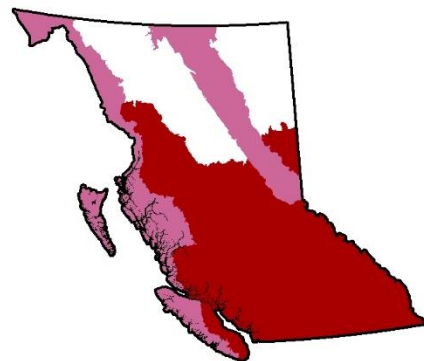
Fm01 Cottonwood – Snowberry – Rose

### Key Characters

- Medium-sized shrub
- Leaves **opposite**, short-stalked, light green to blue-green, margins entire, usually **egg-shaped** and unlobed but **leaves of vigorous shoots with deep, rounded, irregular lobing**
- Flowers small, **bell-shaped with the mouth not flaring, pinkish**, in small clusters at the base of outer leaves, interior of flower with **dense cottony hairs**; **style and stamens not extending from mouth of flower**
- Fruits **large, globular, white berries** with a **spongy texture**; persistent through winter

### Similar Species

- Western Snowberry (*S. occidentalis*) is very similar, but has **more blue-tinged leaves** and the **mouth of the flowers is flaring** and with the **style and stamens extended**; these species are best identified when in flower. This species occurs **only in the interior of B.C.**



## Alaska Blueberry

*Vaccinium alaskaense*

### Wetland Site Associations

Ws10 Western Redcedar – Spruce – Skunk Cabbage

Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage

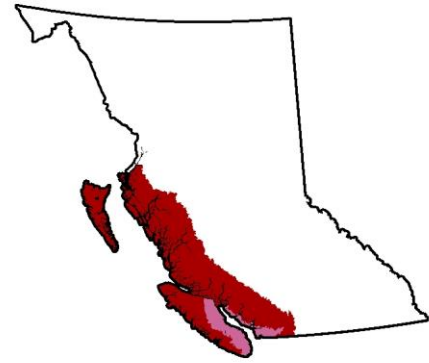
Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage

### Key Characters

- Strictly a **coastal species**
- Medium-sized shrub
- Twigs usually **greenish to reddish-green**
- Leaves usually **widest below the midpoint**, blunt-tipped, **sparsely toothed along the margins**, **sparsely glandular along midrib below**
- Flowers appear **with the leaves** in spring
- Corollas broadly urn-shaped, **bronzy-pink**, **about as long as wide**
- Fruits **bluish-black**, with **little or no pale bloom**

### Similar Species

- Oval-leaved Blueberry is very similar but also occurs in the interior of B.C.; in that species, the **flowers appear before the leaves** in spring, the corollas are **white to pale pink** and **longer than wide**, the leaves are more oval and are **widest around the midpoint**, the leaf margins are **smooth**, the **midrib lacks glands**, and the fruits are **pale blue** with a **strong whitish bloom**
- Black Huckleberry (*V. membranaceum*) has leaves with a **more sharply acute apex** and **finely, densely small-toothed margins**



## Oval-leaved Blueberry

*Vaccinium ovalifolium*

### Wetland Site Associations

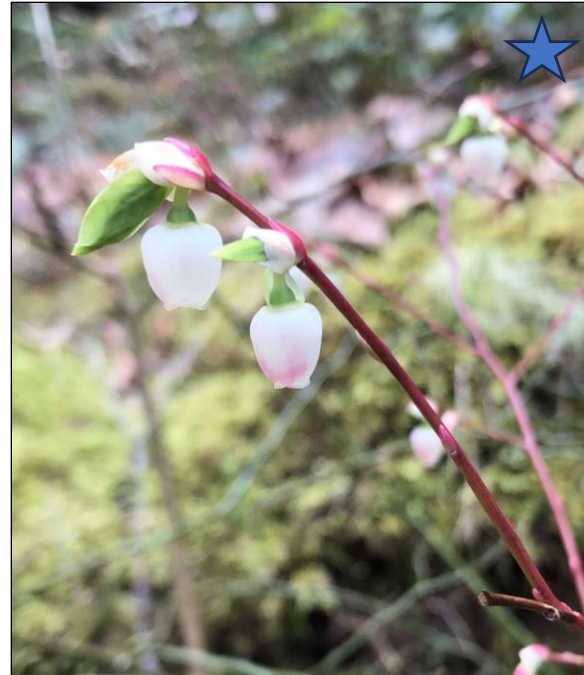
- Ws09 Black Spruce – Skunk Cabbage – Peat-moss
- Ws10 Western Redcedar – Spruce – Skunk Cabbage
- Ws11 Spruce – Subalpine Fir – Skunk Cabbage
- Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage
- Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage

### Key Characters

- Occurs in **both coastal and interior B.C.**
- Medium-sized shrub
- Twigs usually **red or greenish-red**
- Leaves usually **widest around the midpoint**, blunt- to round-tipped, **margins untoothed**
- Flowers appear **before the leaves** in spring
- Corollas narrowly urn-shaped, **white to pale pinkish, longer than wide**
- Fruits **pale blue, with a strong pale bloom**

### Similar Species

- Alaska Blueberry is very similar, but is **restricted to coastal areas**; in that species, the **flowers appear with the leaves** in spring, the corollas are **bronzy-pink and about as long as wide**, the leaves are **widest below the midpoint**, the leaf margins are usually **sparsely toothed**, the **midrib is sparsely glandular below**, and the fruits are **bluish-black with a little or no whitish bloom**
- Black Huckleberry (*V. membranaceum*) has leaves with a **more sharply acute apex** and **finely, densely small-toothed margins**, as well as **shiny black berries**



## Bog Cranberry

*Vaccinium oxycoccos*

(*Oxycoccus oxycoccos*)

### Wetland Site Associations

Wf10 Hudson Bay Clubrush – Red Hook-moss

Wb01Black Spruce – Creeping-snowberry – Peat-moss

Wb02Lodgepole Pine – Bog-rosemary – Peat-moss

Wb04Western Hemlock – Cloudberry – Peat-moss

Wb05Black Spruce – Water Sedge – Peat-moss

Wb07Lodgepole Pine – Water Sedge – Peat-moss

Wb10Lodgepole Pine – Few-flowered Sedge – Peat-moss

Wb11Black Spruce – Buckbean – Peat-moss

Wb12Scheuchzeria – Peat-moss

Wb50Labrador-tea – Bog-laurel – Peat-moss

### Key Characters

- Occurs in southern, central, and coastal BC
- Subshrub, with **thread-like, creeping, woody stems**
- Leaves alternate, **small** (to 1 cm), evergreen, **leathery, elliptic and sharp-pointed, margins rolled under, shiny dark green above, grey-waxy below**
- Flowers **long-stalked** (stalks **short-hairy**), held erect above the substrate, **drooping**; petals **pink and strongly reflexed, stamens and style protruding** as a slender cone
- Fruits **slightly elongate, red berries** (cranberries), persistent through winter

### Similar Species

- Small Cranberry (*V. microcarpum*) replaces Bog Cranberry in **northern BC**; it is a **smaller, more delicate plant** with **smaller leaves** (to 6 mm) that are **more triangular** in shape, **hairless flower stalks**, and **smaller, more spherical berries**. These two species occupy similar ecosystems in their respective ranges.
- Lingonberry has **larger, oblong, round-tipped leaves, bell-shaped flowers**, and **short-stalked flowers/fruits**



## Bog Bilberry

*Vaccinium uliginosum*

### Wetland Site Associations

Wb52 Common Juniper – Tufted Clubrush – Rock moss

### Key Characters

- **Low shrub**, sometimes prostrate
- Leaves **blue-tinged**, often **circular or oval** (sometimes oblong to obovate)
- Petals **pinkish**, fused into a **nearly globular, urn-shaped corolla**
- Berries **pale blue**, covered in a **waxy bloom**, **globular**

### Similar Species

- Dwarf Blueberry (*V. cespitosum*) is a similarly low blueberry that may occur in boggy wetlands; it has **greener, oblanceolate leaves** and **narrower, more elongate corollas**





## Lingonberry

*Vaccinium vitis-idaea*

### Wetland Site Associations

Wb03 Black Spruce – Lingonberry – Peat-moss

Wb06 Tamarack – Water Sedge – Fen moss

### Key Characters

- Low-growing, often mat-forming
- Leaves alternate, **evergreen, leathery, shiny bright green, hairless, oblong with rounded tips, margins rolled under**
- Flowers in **small clusters at stem tips**
- Flowers **bell-shaped, whitish to pinkish, stalks glandular**
- Fruits **bright red, spherical berries with persistent sepals; similar in appearance and flavor to cranberries**

### Similar Species

- Kinnikinnick is similar, but has **darker green oblanceolate leaves, pink urn-shaped flowers, and non-glandular flower stalks; the red berries are dry and mealy, and lack persistent sepals**



## Highbush-cranberry

*Viburnum edule*

### Important Plant Associations

Fm02 Cottonwood – Spruce – Red-osier Dogwood

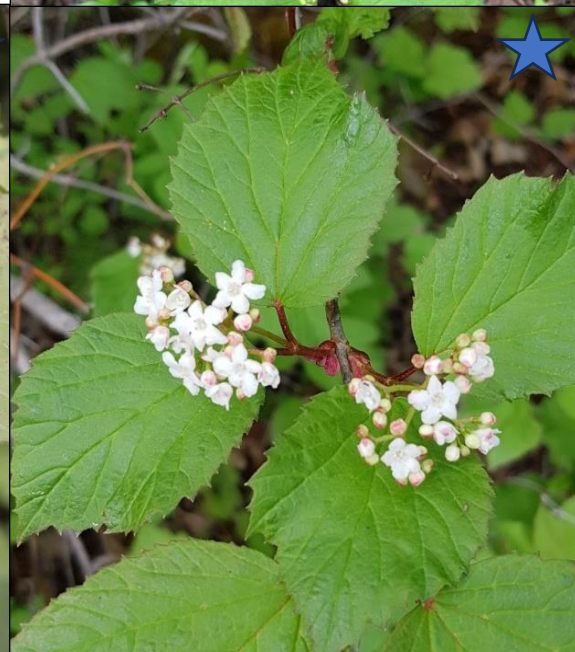
Fm03 Cottonwood – Subalpine Fir – Devil's-club

### Key Characters

- Medium-sized shrub
- Leaves **opposite, shallowly 3-lobed, with regularly toothed margins**
- Flowers **white**, in **small rounded clusters** terminating in short, leafy lateral branchlets
- Fruits **bright red, juicy**, with a **single large, lens-shaped seed**; fruits **remain on plants throughout the winter** and into the following spring

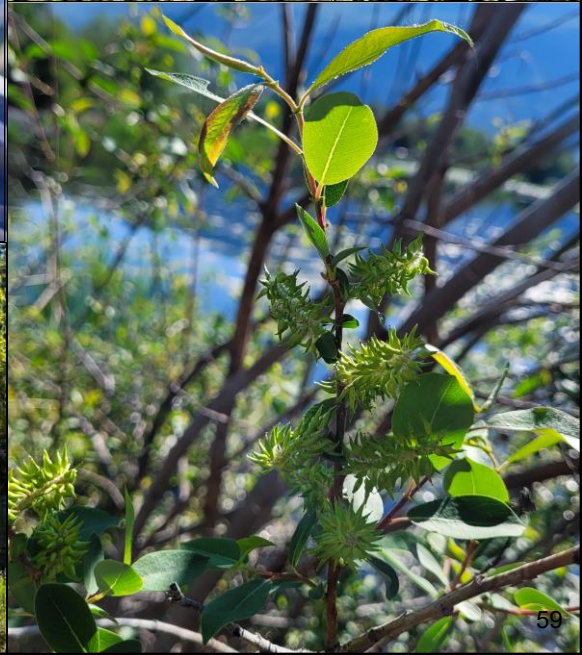
### Similar Species

- American Bush-cranberry (*V. opulus*) is a larger shrub that is infrequent in the BC interior; it has **larger inflorescences with greatly enlarged sterile flowers around their margins**; its leaves have **longer, narrower lobes** with more **coarsely toothed margins**



*Viburnum opulus*

### 3. Willow Shrubs



## Barclay's Willow

*Salix barclayi*

### Important Plant Associations

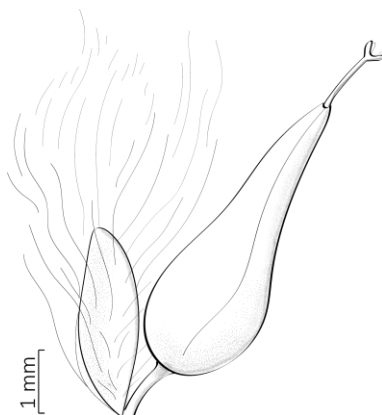
Wf04 Barclay's Willow – Water Sedge – Glow moss

### Key Characters

- Medium-sized shrub
- Twigs **yellowish-green, short-hairy**
- Leaves **elliptic**, light green above, **glaucous and nearly hairless below**, margins finely toothed throughout
- Pistillate catkins stout, on **leafy stalks 4–25 mm long**, appearing **with the leaves**
- Capsules **hairless, greenish**, long and slender, with a **long pointed beak**

### Similar Species

- Serviceberry Willow (*S. pseudomonticola*) is a **larger shrub** that has **broader leaves** and **well-developed stipules** on its twigs; it has **catkins that emerge before the leaves** and are **stalkless or on very short stalks** (to 5 mm)



Capsule

## Bebb's Willow

*Salix bebbiana*

### Wetland Site Associations

Ws03 Bebb's Willow – Bluejoint

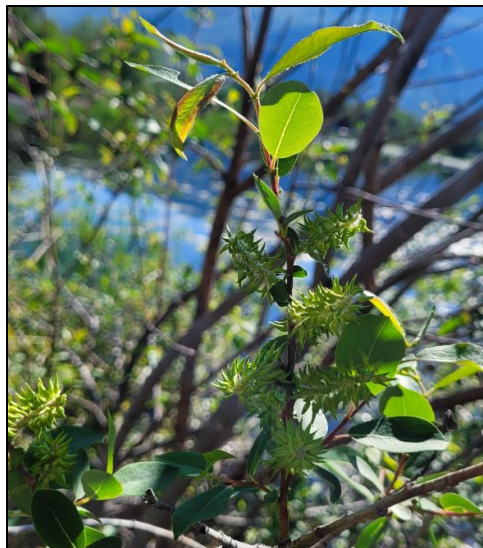
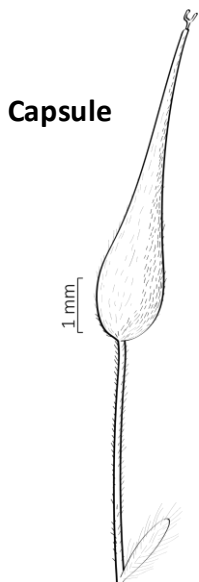
Fl07 Water Birch – Rose

### Key Characters

- **Large shrub**
- Twigs **pinkish- to reddish-brown**
- Leaves **elliptic**, soft-green above, **glaucous below**, often **red-tinged when young**; upper surface distinctly **wrinkled**
- Pistillate catkins elongate, **appearing with the leaves**, terminating in **short leafy twigs**
- Capsules **long-stalked** (stalks *ca.* as long as capsules), **long-beaked**, short-hairy

### Similar Species

- Scouler's Willow (*S. scouleriana*) usually has **oblanceolate leaves** and **unstaked capsules**; the pistillate catkins are **unstaked** and appear **before the leaves in spring**
- Pussy Willow (*S. discolor*) also has **unstaked pistillate catkins** that **appear before the leaves in spring**; it has **larger, darker green leaves** with **more contrasting pale undersides**



## Drummond's Willow

*Salix drummondiana*

### Important Plant Associations

Ws04 Drummond's Willow – Beaked Sedge

Fl04 Sitka Willow – Red-osier Dogwood – Horsetail

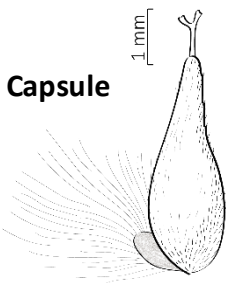
Fl05 Drummond's Willow – Bluejoint

### Key Characters

- Medium-sized to large shrub
- Twigs **brittle**, often covered in a **dense whitish bloom** when young
- Leaves **narrowly elliptic**, pointed at both ends, lower surface **densely white-woolly** with scattered rusty hairs
- Pistillate catkins elongate, densely flowered, appearing **before the leaves** in spring, **unstaked**
- Capsules **unstaked, beaked**, short-hairy

### Similar Species

- Sitka Willow usually has **oblanceolate** leaves with **shinier, silky undersides**



# Willow Shrubs

## Sandbar Willow

*Salix exigua*

### Wetland Site Associations

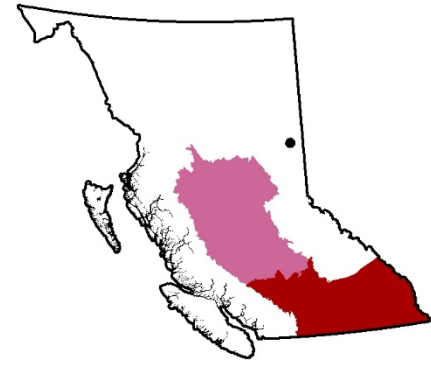
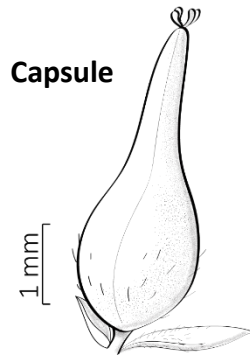
FI06 Sandbar Willow

### Key Characters

- Medium-sized to large shrub of the **southern interior** of BC
- **Reproduces clonally**, forming extensive stands of erect stems
- Twigs **slender and whip-like**, usually drooping
- Leaves long, **linear, densely whitish hairy on both surfaces**; leaf margins **entire** to sharp-toothed
- Pistillate catkins **slender, cylindrical**, terminating **long leafy twigs**,
- Capsules **short-stalked**, beaked, essentially **hairless**

### Similar Species

- Interior Willow (*S. interior*) is similar in form and ecology to Sandbar Willow, but occurs in **northern and central BC**; its leaves are **green and nearly hairless above**, and always have **toothed margins**
- Dusky Willow (*S. melanopsis*) occurs in a similar range and habitat to Sandbar Willow; it has **broader** leaves that are **green and hairless above**



## Pacific Willow

### *Salix lasiandra*

(*Salix lucida*)

#### Wetland Site Associations

Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage

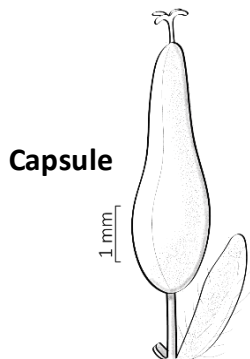
F103 Pacific Willow – Red-osier Dogwood - Horsetail

#### Key Characters

- Large shrub to small tree
- Twigs **yellow to yellow-green**, brightest yellow in winter
- Leaves **glossy dark green** above and **strongly glaucous** below, **lanceolate** with rounded bases and **long-tapering tips**; margins **finely toothed**
- Several (usually 2) **tiny, rounded glands** present at junction of leaf blade and leaf stalk; leaf stalk usually **greenish or yellowish**
- Pistillate catkins **appearing with the leaves** in spring, on **leafy stalks**
- Capsules **long-beaked**, yellow-green, **hairless**; maturing in **early summer**

#### Similar Species

- Autumn Willow (*S. serissima*) is restricted to the Peace region of northeastern BC; it has **darker green, more leathery leaves, greener lower leaf surfaces, and reddish twigs and leaf stalks**; its **capsules mature in late summer/fall**
- Several introduced willows in southern BC are similar, but usually have **tapering leaf bases** and **lack paired glands** at the base of the leaf blade





## MacCalla's Willow

*Salix maccalliana*

### Important Plant Associations

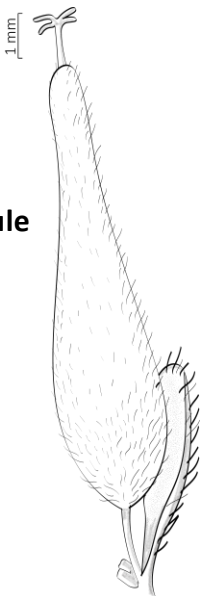
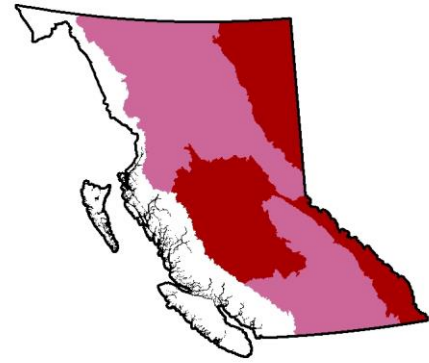
Ws05 MacCalla's Willow – Beaked Sedge

### Key Characters

- Medium-sized to large shrub to small tree
- Twigs stout, **hairless**, usually **reddish**
- Leaves lanceolate to elliptic, pointed at both ends, **thick and leathery**, dark green above and **paler green below** (not glaucous), **sharply toothed** along the margins
- Pistillate catkins **short and stout**, on **leafy twigs**, appearing with or after leaf emergence
- Capsules **very large** (7–11 mm), **long-beaked**, short-hairy

### Similar Species

- This species is highly distinctive in its **green lower leaf surfaces**, **thick and leathery leaves**, and **very large capsules**



Capsule

## Bilberry Willow

*Salix myrtilifolia*

### Important Plant Associations

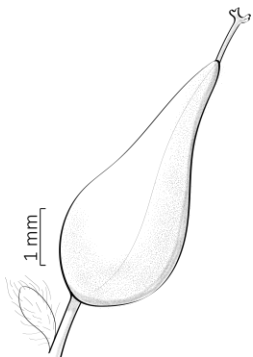
Wb06 Tamarack – Water Sedge – Fen moss

### Key Characters

- **Low, often creeping shrub** (usually < 60 cm)
- Leaves usually broad, oblong to egg-shaped, fine-toothed along entire margin, **hairless, green on both surfaces**
- Pistillate catkins elongate, loosely flowered, borne **at the ends of short leafy branchlets**
- **Capsules short-stalked, green, hairless, with a long pointed beak; styles short** (to 0.7 mm)

### Similar Species

- Tall Blueberry Willow (*S. pseudomyrsinites*) is very similar but is less common; it is a **larger shrub** (to 4 m) with **sparsely short-hairy mature leaves** (at least on midrib), more **prominent stipules**, and **longer styles** (to 1.6 mm)



Capsule



## Bog Willow

### *Salix pedicellaris*

#### Important Plant Associations

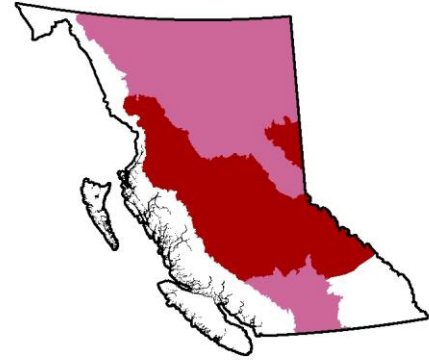
- Wf02 Scrub Birch – Water Sedge
- Wf07 Scrub Birch – Buckbean – Shore Sedge
- Wb06 Tamarack – Water Sedge – Fen moss
- Wb12 Scheuchzeria– Peat-moss

#### Key Characters

- **Low shrub** (to 1.5 m) with **erect branches**
- Leaves **oblong, rounded at both ends, strongly blue-toned, hairless on both surfaces, strongly glaucous below, with a pale midrib and numerous closely-spaced, parallel lateral veins**
- Pistillate catkins short, egg-shaped to oblong, borne **at the ends of short leafy branchlets**
- **Capsules long-stalked** (stalks *ca.* as long as capsules), **hairless, reddish when mature, with a rounded beak**

#### Similar Species

- Grey-leaved Willow is a **taller shrub** (to 3 m) with **densely silky-hairy leaves** (at least on the lower surface), longer pistillate catkins, and **unstaked, densely white-woolly capsules**
- Athabasca Willow is uncommon in northern B.C.; it is similar to Grey-leaved Willow, but has **scattered rusty hairs on the lower leaf surface**



Capsule



## Sitka Willow *Salix sitchensis*

### Wetland Site Associations

- Ws06 Sitka Willow – Sitka Sedge
- Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage
- F104 Sitka Willow – Red-osier Dogwood – Horsetail
- F150 Sitka Willow – False Lily-of-the-valley

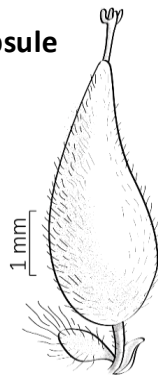
### Key Characters

- Large shrub
- Twigs short-hairy
- Leaves usually **oblanceolate to obovate, shiny silky-hairy with whitish hairs beneath**
- Pistillate catkins elongate, densely flowered, appearing **with the leaves** in spring, **on short leafy stalks**
- Staminate flowers with only **one stamen** (only BC species with that condition)
- Capsules **short-stalked, beaked**, short-hairy

### Similar Species

- Drummond's Willow has **narrower oblanceolate to elliptic leaves** that are **white-woolly below** (not silky or shiny)
- Scouler's Willow has similar leaf shape, but has **lightly glaucous, sparsely hairy leaf undersides** that **lack silky, glossy hairs**

Capsule



# 4. Forbs



## Red Baneberry

*Actaea rubra*

### Wetland Site Associations

Fm03 Cottonwood – Subalpine Fir – Devil’s-club

### Key Characters

- **Highly toxic**
- Leaves long-stalked, **2x to 3x compound**; leaflets egg-shaped, **sharply and irregularly toothed**
- Flowers **small, white, in a tight, rounded cluster** at the top of the stem; flowers reduced, **stamens elongate** and giving the inflorescence a ‘bottlebrush’ appearance
- Fruits shiny, **bright red or white berries** on long stalks

### Similar Species

- Goat’s-beard (*Aruncus dioicus*) has similar leaves, but is a **larger plant** and produces **large, branching inflorescences** of small, white flowers; the fruits are **small, dry follicles**



## White Mountain Marsh-marigold

*Caltha leptosepala*

### Wetland Site Associations

Wf12 Narrow-leaved Cotton-grass – Marsh-marigold

Wf13 Narrow-leaved Cotton-grass – Shore Sedge

### Key Characters

- **Flowers in early spring**, often while snow still remains
- Leaves **mostly basal, heart-shaped to kidney-shaped with rounded tips**, margins with **small, rounded teeth**; basal leaf lobes sometimes overlapping
- **Flowers usually 1–2 per stem** (rarely 3–4), terminal atop **long stalks**
- **Petal-like sepals 6–12, narrowly oblong, white, outer surface blue-tinged**; stamens numerous, **yellow**
- Fruits **erect follicles**, in **dense clusters** of 4– 5

### Similar Species

- Globeflower has **broader petal-like sepals that lack a blue-tinge** on the outer surface; the leaves are **deeply palmately divided into 5–7 toothed lobes**
- Deer-cabbage has similar leaves to *Caltha*, but produces **taller, erect stems topped by branched inflorescences of smaller flowers with 5 spreading, ruffle-margined, waxy-textured petals**



## Douglas' Water-hemlock

*Cicuta douglasii*

### Wetland Site Associations

Wm02 Swamp Horsetail – Beaked Sedge

Wm05 Cattail

Wm50 Sitka Sedge – Water-parsley

### Key Characters

- **Highly toxic**
- Stems erect, usually branching above, **chambered at the base when cut longitudinally**
- Leaves basal and along the stem, **twice-compound**; leaflets **lanceolate, sharp-toothed**
- Flowers **tiny, white, in flat-topped or rounded clusters (umbels)** at ends of branches
- Fruits **small, egg-shaped to nearly spherical, 2-parted, ribbed**, in clusters at ends of umbel ribs

### Similar Species

- Water-parsnip has **once-compound leaves with narrower, often nearly linear leaflets or (in early leaves) highly dissected leaflets**; it lacks the **chambered stem base**.
- Angelicas (*Angelica* spp.) are usually **larger, coarser plants with larger leaves that have inflated clasping stalks**, as well as often **larger umbels** of flowers





## Enchanter's-nightshade

*Circaea alpina*

### Wetland Site Associations

FI51 Red Alder – Salmonberry – Devil's-club

### Key Characters

- Low perennial herb; often forming extensive colonies
- Leaves **opposite**, stalked, **blades heart-shaped**, margins toothed
- Flowers in **erect, elongate, often branched clusters** at the stem tip and from the leaf axils
- Flowers **small, white**, with **2 notched petals** alternating with **2 egg-shaped white sepals**
- Fruits **small, pear-shaped capsules**; surface **densely hooked-hairy**

### Similar Species

- Stream Violet (*Viola glabella*) has similarly heart-shaped leaves, but the **leaves are alternate** and the **flowers are larger, yellow**, and produced singly



# Marsh Cinquefoil

*Comarum palustre*

### Wetland Site Associations

- Wm01 Beaked Sedge – Water Sedge
- Wm02 Swamp Horsetail – Beaked Sedge
- Wm50 Sitka Sedge – Water-parsley
- Wm51 Three-way Sedge
- Wf02 Scrub Birch – Water Sedge
- Wf07 Scrub Birch – Buckbean – Shore Sedge Wf51 Sitka Sedge – Peat-moss
- Wb05 Black Spruce – Water Sedge – Peat-moss
- Wb08 Black Spruce – Soft-leaved Sedge – Peat-moss
- Wb11 Black Spruce – Buckbean – Peat-moss



### Key Characters

- **Aquatic or terrestrial herb**; stems often **reddish**, sometimes submerged in water with **only leaves and flowering stems emerging**
- Leaves alternate, **compound**, with **5–7 oblong leaflets**; leaflets **blue-green**, margins **coarsely toothed**
- Flowers **dark purplish-red**, sepals **larger and petal-like**, petals **smaller and narrower than sepals**; centre of flower a **conical cluster of red ovaries (strawberry-like) covered in bristly styles**
- Fruits small, **seed-like**, reddish, **clustered in a hard, strawberry-like head surrounded by erect, inflated sepals**

### Similar Species

- This is a highly distinctive species in BC and is unlikely to be misidentified.



## Three-leaved Goldthread

*Coptis trifolia*

### Wetland Site Associations

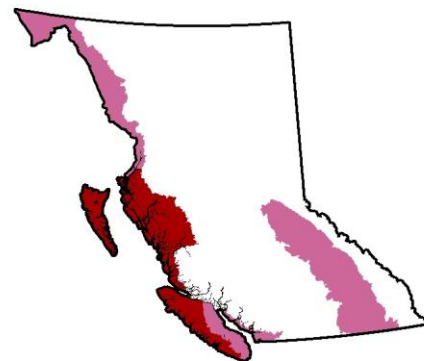
- Wb07 Lodgepole Pine – Water Sedge – Peat-moss
- Wb51 Shore Pine – Crowberry – Tough Peat-moss
- Wb52 Common Juniper – Tufted Clubrush – Rock moss
- Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

- Small, delicate herb; **rhizomes yellow to orange**
- Leaves **basal, evergreen, leathery, long-stalked, trifoliate**; leaflets **egg-shaped, coarsely toothed, teeth with minute spines** at their tips
- Flowers **solitary** atop **long stalk**, with **5–6 spreading white petal-like sepals**; **petals small, reduced, yellow, club-shaped**; stamens numerous
- Fruits 4–7 **spreading, long-stalked follicles**

### Similar Species

- This is a highly distinctive species and is unlikely to be misidentified in B.C.



## Great Sundew

*Drosera anglica*

### Wetland Site Associations

- Wb12 Scheuchzeria – Peat-moss
- Wb13 Shore Sedge – Buckbean – Peat-moss
- Wf10 Hudson Bay Clubrush – Red Hook-moss

### Key Characters

- **Carnivorous**
- Leaves **all basal**, paddle-shaped; **blade narrowly oblanceolate** with a rounded tip, **grading into the leaf stalk**, **densely covered in red hairs that are topped by a single droplet of sticky fluid**
- Flowers **small, white**, in clusters of **2–12** atop an **erect, leafless stem**; usually only 1 flower opening at a time, beginning with the lowest flower
- Fruits small capsules

### Similar Species

- Round-leaved Sundew often occurs with *D. anglica*; it is **smaller** and the **leaf blades are circular** and **sharply differentiated from the leaf stalk**



## Round-leaved Sundew

*Drosera rotundifolia*

### Wetland Site Associations

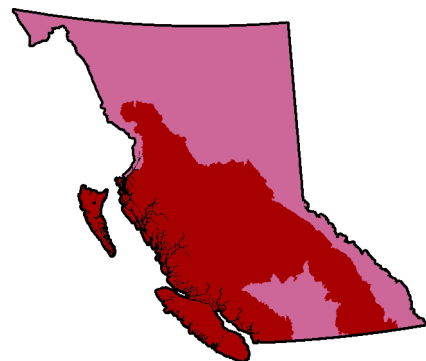
- Wb50 Labrador-tea – Bog-laurel – Peat-moss
- Wb52 Common Juniper – Tufted Clubrush – Rock moss
- Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush
- Wf50 Narrow-leaved Cotton-grass – Peat-moss
- Wf53 Slender Sedge – White Beak-rush

### Key Characters

- **Carnivorous**
- Leaves **all basal**, paddle-shaped; **blade circular**, **abruptly differentiated from the leaf stalk**, **densely covered in red hairs that are topped by a single droplet of sticky fluid**
- Flowers **small, white**, in clusters of **2-15** atop an **erect, leafless stem**; usually **barely opening**
- Fruits small capsules

### Similar Species

- Great Sundew often occurs with *D. rotundifolia*; it is **larger** and the **leaf blades are narrowly oblanceolate** and **grade into the leaf stalk**



## Small Bedstraw

*Galium trifidum*

### Wetland Site Associations

Wm50 Sitka Sedge – Water-parsley

### Key Characters

- Delicate herb
- Stems weak, **usually trailing or clambering, square in x-section, with hooked bristles along the angles**
- Leaves in **whorls of 4–6, linear to narrowly oblong**
- Flowers tiny, white, **3-petalled, in clusters of 2–3** atop long, slender stalks
- Fruits **pairs of tiny, smooth, spherical nutlets**

### Similar Species

- Marsh Bedstraw (*G. palustre*) is uncommon in s BC; it is **larger and more erect** than Small Bedstraw, with often **broader leaves and larger, 4-petalled flowers in larger, branching inflorescences**
- Labrador Bedstraw (*G. labradoricum*) is rare in NE BC; it is similar in size to Small Bedstraw, but has **more erect stems and 4-petalled flowers**



*Galium palustre*

## Cow-parsnip

*Heracleum maximum*

### Wetland Site Associations

- FI01 Mountain Alder – Common Horsetail
- FI02 Cottonwood – Snowberry – Rose
- FI50 Sitka Willow – False Lily-of-the-valley

### Key Characters

- **Large (to 2 m tall), robust** perennial herb
- Stems sparingly branched
- **Leaves large (to 50 cm long)**, compound, usually hairy, with **3 coarsely toothed/lobed leaflets**; **leaf stalks inflated**, strongly sheathing the stem
- Flowers small, white, in **large flat-topped clusters (umbels) at stem tips**
- Fruits **flattened, egg-shaped, winged**, splitting into 2 papery scales at maturity

### Similar Species

- Giant Hogweed (*H. mantegazzianum*) is occasional in SW BC, and is an invasive exotic species in the province; it is **much larger (to 4.5 m tall)**, with **larger (to 3 m long)**, **more coarsely and deeply lobed/toothed leaflets**



## Bog St. John's-wort

*Hypericum anagalloides*

### Wetland Site Associations

Wf52 Sweet Gale – Sitka Sedge

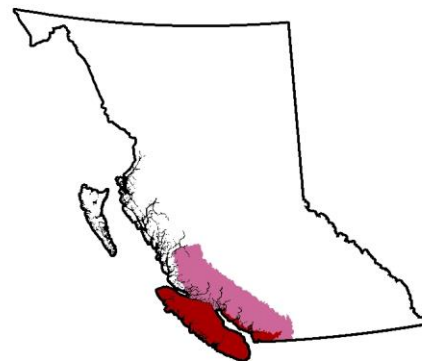
Wf53 Slender Sedge – White Beak-rush

### Key Characters

- **Low, mat-forming**; stems **leafy**, often **trailing or sprawling**
- Leaves **opposite**, small, **stalkless, egg-shaped to elliptic**, rounded at the tips
- Flowers **small** (to 6 mm across), **yellow**, 5-petalled, short-stalked, **solitary at branch tips**; **stamens numerous**
- Fruits small, rounded to egg-shaped capsules

### Similar Species

- Several other small-flowered *Hypericum* species occur in SW BC, but these are all **taller, erect species** with **open, branched inflorescences** (when mature)





## Leatherleaf Saxifrage

*Leptarrhena pyrolifolia*

### Wetland Site Associations

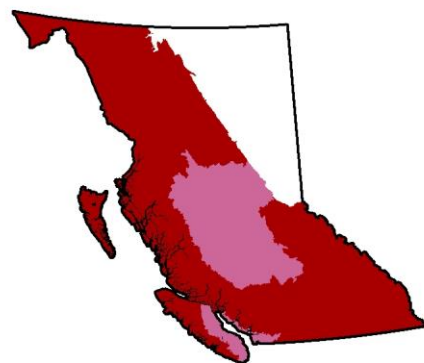
- Wf03 Water Sedge – Peat-moss
- Wf12 Narrow-leaved Cotton-grass – Marsh-marigold
- Wf13 Narrow-leaved Cotton-grass – Shore Sedge

### Key Characters

- **Early-flowering**
- Leaves **thick, leathery, evergreen, egg-shaped**, margins with **shallow blunt teeth**; leaves usually relatively appressed to the substrate
- Flowers small, white, in **rounded or egg-shaped clusters stop leafless stems**
- Fruits **bright red, paired follicles** in open, branched clusters; highly conspicuous and **long-persistent**

### Similar Species

- This is a highly distinctive species throughout its range in BC, and is unlikely to be misidentified.



## Western Skunk Cabbage

*Lysichiton americanus*

### Wetland Site Associations

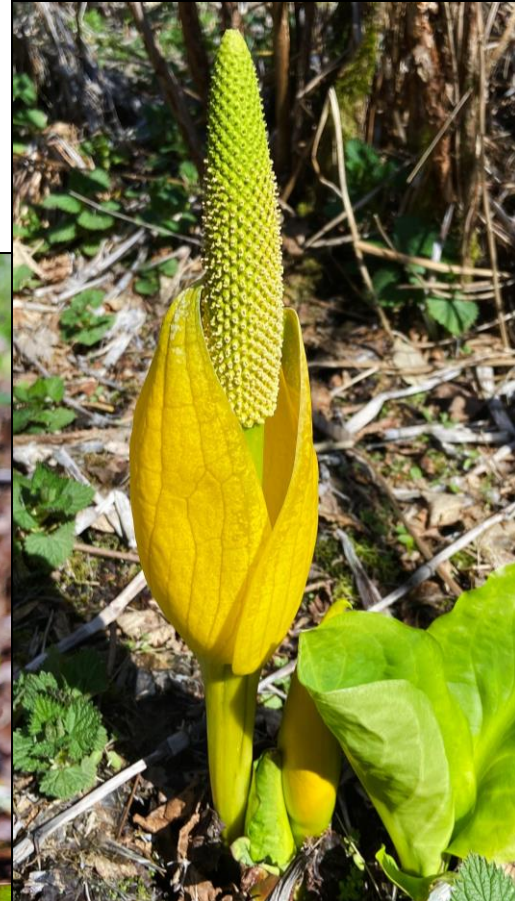
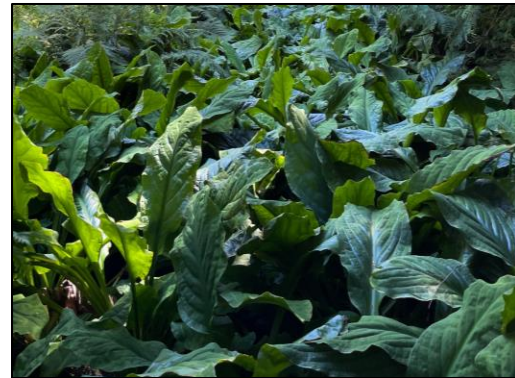
- Ws01 Mountain Alder – Skunk Cabbage – Lady Fern
- Ws09 Black Spruce – Skunk Cabbage – Peat-moss
- Ws10 Western Redcedar – Spruce – Skunk Cabbage
- Ws11 Spruce – Subalpine Fir – Skunk Cabbage
- Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage
- Ws52 Red Alder – Skunk Cabbage
- Ws53 Western Redcedar – Sword Fern – Skunk Cabbage
- Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage
- Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage
- Wm50 Sitka Sedge – Water-parsley

### Key Characters

- Emerges in **early spring**, sometimes before snow has melted
- Entire plant with **skunky odor**
- Leaves **large** (up to 1.5 m long when fruiting), oblong, **rubbery in texture**, leaf stalk channeled on upper side
- Flowers produced in a **stout, erect spike** of small flowers surrounded by a **bright yellow hood** (spathe)

### Similar Species

- This is a highly distinctive, well-known, and unmistakable species in B.C.



# False Lily-of-the-valley *Maianthemum dilatatum*

## Wetland Site Associations

- FI50 Sitka Willow – False Lily-of-the-valley
- Fm50 Cottonwood – Red Alder – Salmonberry
- Ws52 Red Alder – Skunk Cabbage
- Ws53 Western Redcedar – Sword Fern – Skunk Cabbage



## Key Characters

- Stems erect, **unbranched**
- Leaves **few (2–3)**, **alternate**, simple, **broadly heart-shaped, stalked**
- **Sterile, deeply heart-shaped leaves** often abundant and **forming a carpet**
- Flowers in **small, white, in erect elongate, unbranched clusters**; petals tiny, **strongly recurved**
- Fruits **spherical berries**, initially firm and **pale pink with red or brown speckling**, eventually **red and soft**

## Similar Species

- Three-leaved False Solomon’s-seal (*Maianthemum trifolium*) is restricted to **NE and C BC**; it usually occurs in **bogs and fens**, and has **unstalked leaves with tapered bases**



## Buckbean

### *Menyanthes trifoliata*

#### Wetland Site Associations

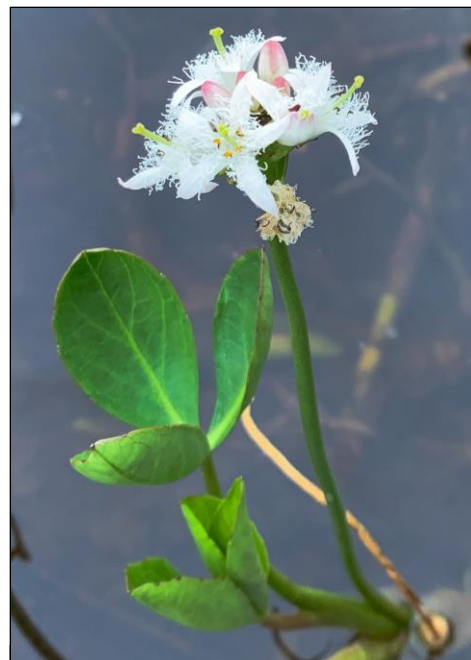
- Wm51 Three-way Sedge
- Wb11 Black Spruce – Buckbean – Peat-moss
- Wb13 Shore Sedge – Buckbean – Peat-moss
- Wf06 Slender Sedge - Buckbean
- Wf07 Scrub Birch – Buckbean – Shore Sedge
- Wf08 Shore Sedge – Buckbean – Hook-moss
- Wf10 Hudson Bay Clubrush – Red Hook-moss
- Wf11 Tufted Clubrush – Star Moss

#### Key Characters

- **Aquatic herb**; stems fully submerged in water with **only leaves and flowering stems emerging**
- Leaves **composed of 3 oblong or egg-shaped leaflets**; leaflets held **upright**
- Flowers in **oblong clusters atop erect, emergent stems**
- Flowers with 5–6 **spreading, narrow petals**; inner surface of petals with **long, dense, white hairs**
- Fruits egg-shaped capsules

#### Similar Species

- This is a highly distinctive species in BC and is unlikely to be misidentified.



## Deer-cabbage

### *Neprophyllidium crista-galli*

(*Fauria crista-galli*)

#### Wetland Site Associations

Wb52 Common Juniper – Tufted Clubrush – Rock moss

Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

Wf50 Narrow-leaved Cotton-grass – Peat-moss

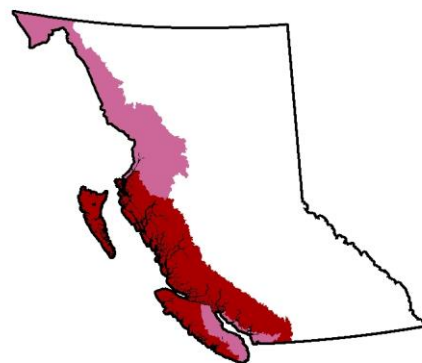
Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage

#### Key Characters

- Stems erect, unbranched
- Leaves all basal, long-stalked, **kidney-shaped and with strongly overlapping basal lobes**, margins **coarsely toothed**
- Flowers in **branched clusters at the stem tips**; branches **ascending**
- Flowers with 5 large, **white**, spreading to recurved petals, with **ruffled margins** and a **firm, waxy texture**
- Fruits small, **conical to egg-shaped capsules**

#### Similar Species

- White Mountain Marsh-marigold has similar leaves, but its flowers have **6–12 petal-like sepals** and are **borne singly at the top of long stalks**, with only **1–2 flowers per plant**



## Yellow Pond-lily

*Nuphar polysepala*

(*Nuphar lutea* subsp. *polysepala*)

### Wetland Site Associations

Wm51 Three-way Sedge

### Key Characters

- Submerged aquatic with **floating leaves**
- Leaves **long-stalked** from large buried rhizome, leaf **stalks rounded in x-section**; leaves **large** (to 45 cm long), **heart-shaped**, bright green
- Flowers **large, yellow**, occurring singly atop **thick, emergent stalks**
- Petals **numerous, ascending**, rounded, subtended by rounded green sepals; ovary large and green, with a **large, umbrella-shaped, yellow stigmatic disc**
- Fruits large, egg-shaped, ribbed, green capsules that are constricted below the stigmatic disc

### Similar Species

- Variegated Yellow Pond-lily (*N. variegata*) occurs locally in eastern B.C.; it is a **smaller species** with somewhat **flattened, narrowly winged leaf stalks**, **reddish-tinged sepals**, and **reddish or purplish capsules**
- Fragrant Water-lily (*Nymphaea odorata*) is introduced in s BC; it has **white to pink, spreading, pointed petals** that contrast with the numerous **yellowish stamens**



*Nymphaea odorata*

## Pacific Water-parsley

### *Oenanthe sarmentosa*

#### Wetland Site Associations

Ws50 Sitka Sedge – Water-parsley

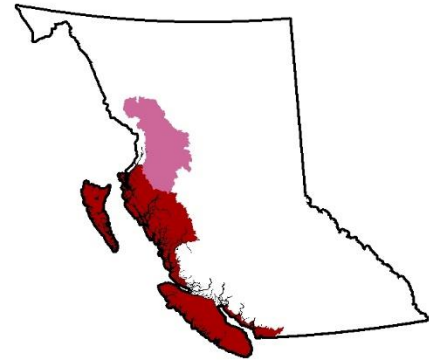
Wm50 Sitka Sedge – Water-parsley

#### Key Characters

- Stems usually **trailing or clambering**, sparingly branched
- Leaves **dark green, twice-compound, parsley-like**, oblong or egg-shaped in outline, usually **persistent through winter**; leaflets **rather broad, with pointed tips and jagged-toothed margins**
- Flowers **tiny, white**, numerous in **long-stalked, flat-topped clusters (umbels)** at **branch tips**
- Fruits **reddish, barrel-shaped, 2-parted, ribbed**; in prickly, spherical clusters at ends of umbel ribs

#### Similar Species

- Douglas' Water-hemlock has **erect, often purple-tinged stems, narrower leaflets, and transversely channelled stem bases** (when cut longitudinally). **Highly toxic.**
- Angelicas (*Angelica* spp.) are **larger, erect plants** with **larger leaves with inflated clasping stalks**, as well as **larger umbels** of flowers at the **top of the stem**



## Mountain Sweet-cicely

*Osmorhiza berteroi*

### Wetland Site Associations

Fm02 Cottonwood – Spruce – Red-osier Dogwood

Fm03 Cottonwood – Subalpine Fir – Devil's-club

### Key Characters

- Perennial herb; stems sparingly branched
- Leaves **twice-compound**, stalked, **soft in texture**, hairy; leaflets **egg-shaped, coarsely toothed**
- Flowers **appearing in early spring**, small, **inconspicuous, greenish-white**, in small clusters at stem tips; flower stalks become longer and stiffer during flowering period
- Fruits **slender, needle-like**, bristly-hairy, **with one end thickened and short-beaked**; fruits become blackish and **split into 2 halves at maturity** that remain attached by fine stalks

### Similar Species

- Purple Sweet-cicely (*O. purpurea*) is very similar, but has **purplish flowers** and generally occurs at **higher elevations**
- Blunt-fruited Sweet-cicely (*O. depauperata*) has **fruits that are club-shaped and without a beak at one end**; it is uncommon in the BC interior.





## Water Smartweed

*Persicaria amphibia*  
(*Polygonum amphibium*)

### Wetland Site Associations

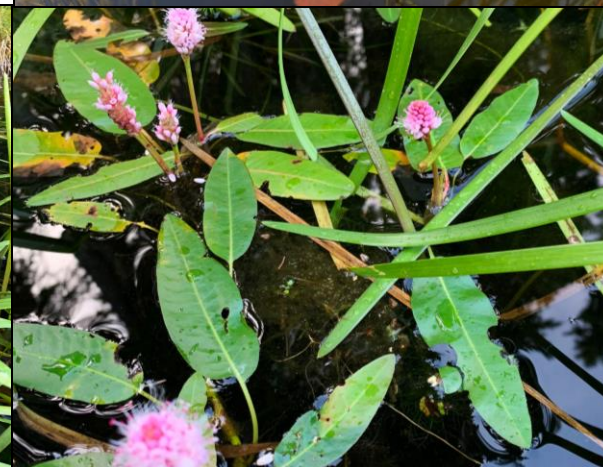
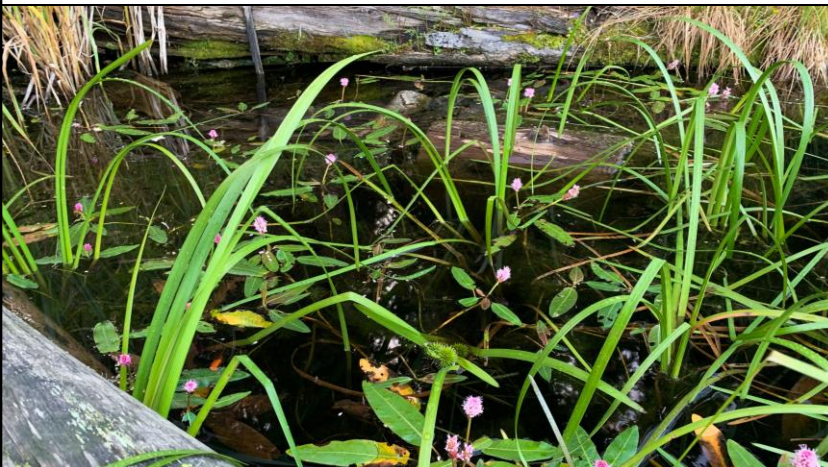
Wm03 Awned Sedge

### Key Characters

- Stems **submerged, emergent, or terrestrial**, with **papery sheaths** around each leaf node
- Stems of emergent and terrestrial plants erect or ascending
- Leaves of submergent plants **floating, stalked, oblong or elliptic, untoothed**, shiny and hairless above
- Leaves of emergent and terrestrial plants with **narrower, more lanceolate, hairier leaves**
- Flowers small, **pink, in dense, erect, egg-shaped to oblong spikes** atop erect stalks above the surface of the water
- Fruits tiny, **seed-like, dark brown, lens shaped** achenes

### Similar Species

- Floating-leaved Pondweed (*Potamogeton natans*) has similar floating leaves, but has **parallel venation** on its **egg-shaped, extremely long-stalked leaves**; the flowers are **greatly reduced and greenish**, and are produced in **elongate spikes** just above the surface of the water



## White Bog-orchid

*Platanthera dilatata*

### Wetland Site Associations

- Wf03 Water Sedge – Peat-moss
- Wf09 Few-flowered Spike-rush – Hook-moss
- Wf12 Narrow-leaved Cotton-grass – Marsh-marigold
- Wb52 Common Juniper – Tufted Clubrush – Tock Moss

### Key Characters

- Stems erect, unbranched, leafy
- Leaves **ascending, strongly sheathing the stem**, lanceolate, tips usually blunt
- Flowers in **erect, dense, many-flowered spikes**
- Flowers **sweet-smelling, white, petals narrow** and spreading to recurved, lower petal (labellum) **narrowly lanceolate**; flowers with **curved, cylindric spurs that equal or exceed the length of the labellum**
- Fruits small, **elliptic**, greenish, upright capsules

### Similar Species

- Hooded Ladies-tresses (*Spiranthes romanzoffiana*) is also white-flowered, but is a **smaller** species in which the **flowers are arranged spirally** in several rows up the stem



Hooded Lady's Tresses

## Richardson's Pondweed

*Potamogeton richardsonii*

### Wetland Site Associations

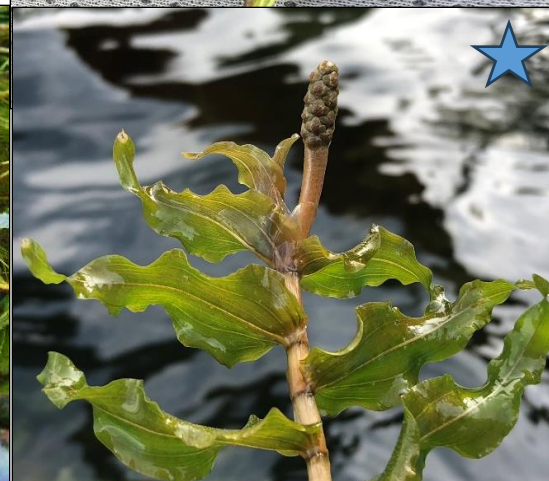
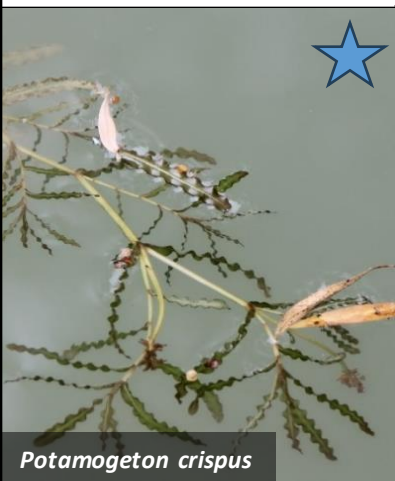
Wm04 Common Spike-rush

### Key Characters

- Submerged aquatic; stems **lax, weak**, to 100 cm long
- Leaves **all submerged** (none floating), **narrowly to broadly lanceolate**, often recurved, **margins wavy and untoothed**; leaf bases **unstaked** and **strongly clasping the stem**; leaf bases with **membranous stipular sheaths** above the leaf nodes
- Flowers greatly reduced, greenish or brownish, produced on stalked, cylindrical, submerged or emergent spikes at stem tips
- Fruits small, hard, beaked, **seed-like achenes** in **thick, dense spikes**

### Similar Species

- Long-stalked Pondweed (*P. praelongus*) has **longer, narrower leaves** and the flowering/fruitletting **spikes borne at the ends of long, whitish stalks** from the upper leaf axils
- Curled Pondweed (*P. crispus*) is introduced in S BC; it has **narrower leaves** and the **leaf margins are finely toothed much more conspicuously wavy**



## Common Silverweed

*Potentilla anserina* subsp. *anserina*

### Wetland Site Associations

Wm07 Baltic Rush

### Key Characters

- Mat-forming; stems **trailing**, with **long, arching stolons**
- Leaves often held erect, compound with **11–25 main leaflets** interspersed with **numerous smaller leaflets**; main leaflets **rounded to egg-shaped, coarsely toothed, green to silvery-hairy above, densely white-woolly below**
- Flowers on **long leafless stalks, yellow**, with **5 egg-shaped petals** interspersed with 5 shorter pointed sepals, stamens numerous
- Fruits **dense aggregates of seed-like achenes** above **persistent sepals**

### Similar Species

- Pacific Silverweed (*P. anserina* subsp. *pacifica*) is very similar but has leaves that are **shiny and green above**, strongly contrasting with the **white-woolly lower surfaces**. This subspecies is restricted to brackish and saline habitats along the **coast of BC**.



## Pink Wintergreen

*Pyrola asarifolia*

### Wetland Site Associations

Fm02 Cottonwood – Spruce – Red-osier Dogwood

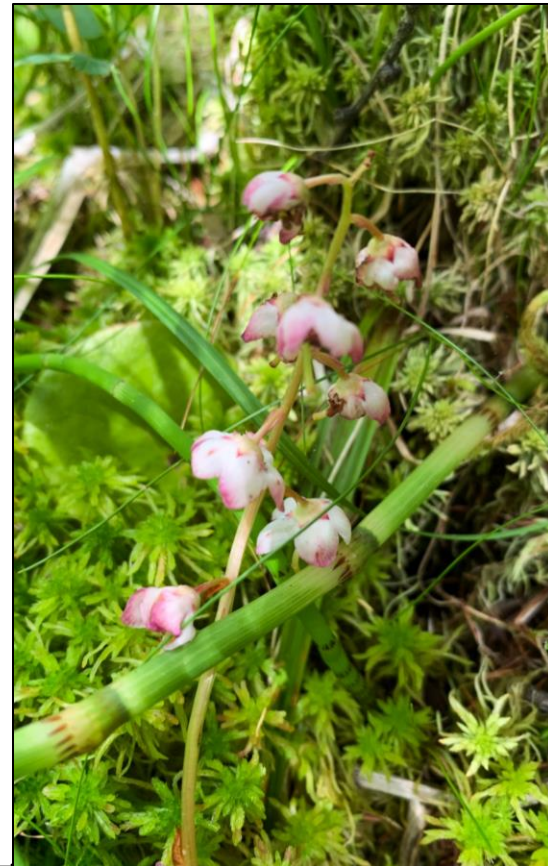
Fm03 Cottonwood – Subalpine Fir – Devil's-club

### Key Characters

- **Evergreen** herb
- Leaves all basal, long-stalked with **reddish stalks**, dark green, leathery, blade **broadly egg-shaped to nearly circular or kidney-shaped**, margins smooth or with minute, well-spaced teeth
- Flowers in an elongate inflorescence atop a solitary, erect, leafless stem
- Petals 5, spreading, not fused, **pink or whitish with pink tips; style long and upcurved**
- Fruits small, 5-chambered capsules with a **persistent upcurved style**

### Similar Species

- Green-flowered Wintergreen (*P. chlorantha*) is a **smaller, fewer-flowered species with greenish-white flowers and smaller leaves with more circular blades and longer stalks**
- Lesser Wintergreen (*P. minor*) is a **smaller species with whitish to pinkish flowers; the flowers are more bell-shaped, and are distinctly nodding and without a long, persistent, upcurved style**



## Great Burnet

*Sanguisorba officinalis*

### Wetland Site Associations

Wb51 Shore Pine – Crowberry – Tough Peat-moss

Wb52 Common Juniper – Tufted Clubrush – Rock moss

Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

- Leaves mostly basal, **compound**, with **7–15 egg-shaped, rounded, stalked, coarsely toothed leaflets**
- Flowers in **small, rounded to oblong clusters atop long stalks that exceed the leaves**
- Flowers densely arranged, comprised primarily of small reddish-purple sepals and **short purplish stamens that do not exceed the length of the sepals**
- Fruits solitary spherical achenes enclosed in plant tissue (hypanthium)

### Similar Species

- Sitka Burnet has similar leaves, but the inflorescence is a **long, erect spike of whitish flowers with very long stamens that greatly exceed the sepals** (creating a bottlebrush-like appearance)
- Menzies' Burnet (*S. menziesii*) is rare in coastal BC; it is similar to Sitka Burnet, but the flowers (sepals and stamens) are **reddish or purplish**



## Sitka Burnet

*Sanguisorba stipulata*

(*Sanguisorba canadensis*)

### Wetland Site Associations

Wf03 Water Sedge – Peat-moss

Wf50 Narrow-leaved Cotton-grass – Peat-moss

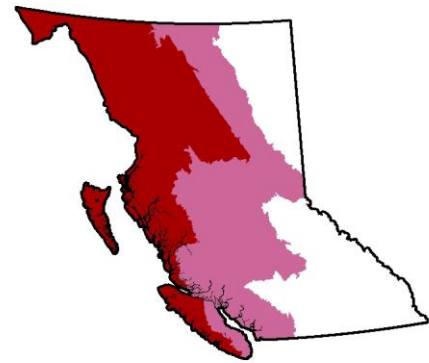
Wf51 Sitka Sedge – Peat-moss

### Key Characters

- Leaves mostly basal, **compound**, with **9–17 egg-shaped, rounded, stalked, coarsely toothed leaflets**
- Flowers in **long, erect spikes that exceed the leaves**
- Flowers densely arranged, consisting primarily of small whitish sepals and **long, spreading, whitish stamens** that produce a **bottlebrush-like inflorescence**
- Fruits solitary spherical achenes enclosed in plant tissue (hypanthium)

### Similar Species

- Great Burnet has similar leaves, but the inflorescence is a **small, short, dense, oblong cluster of dark purple flowers with short stamens**
- Menzies' Burnet (*S. menziesii*) is rare in coastal BC; it is similar to Sitka Burnet, but the flowers (sepals and stamens) are **reddish or purplish**



*Sanguisorba menziesii*

## Scheuchzeria

### *Scheuchzeria palustris*

#### Wetland Site Associations

Wb12 Scheuchzeria – Peat-moss

#### Key Characters

- Stems erect, **zigzag, yellowish-green**, hairless, non-glandular
- Leaves **erect, rush-like**, rounded in x-section, **channeled**
- Flowers 3-12, **small, greenish-yellow to purplish**, on erect stalks from upper leaf and bract axils
- Fruits **conspicuous, long-persistent, yellow-green to dark brown, inflated, spreading follicles in clusters of 2-3** at tips of inflorescence stalks

#### Similar Species

- Rushes (*Juncus* spp.) differ in their usually **darker (brownish or blackish) floral parts** and much **smaller, less conspicuous capsules** that occur **singly in each flower** and are surrounded by **persistent tepals**





## Arrow-leaved Groundsel

*Senecio triangularis*

### Wetland Site Associations

Wf03 Water Sedge – Peat-moss

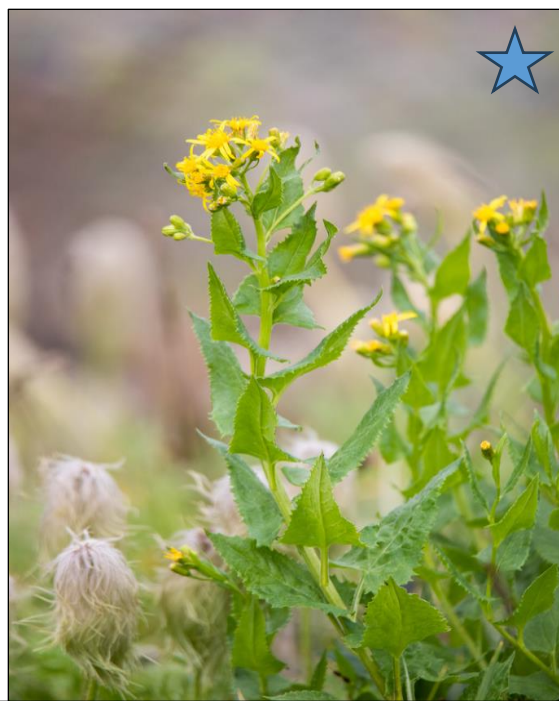
Wf04 Barclay's Willow – Water Sedge – Glow Moss

### Key Characters

- Stems erect, unbranched
- Leaves along the stem, **short-stalked below and unstalked above, narrowly triangular, margins coarsely toothed**
- Flower heads in branched, **rounded or flat-topped clusters** atop the stem
- Flower heads **yellow, with both ray and disc florets**; involucre bracts narrow, **black-tipped**, in a **single main row** with smaller, narrower subtending bractlets
- Fruits small, hairless achenes with a **tuft of white, hair-like bristles** at one end

### Similar Species

- This is a highly distinctive species throughout its range in BC, and is unlikely to be misidentified.



## Water-parsnip

*Sium suave*

### Wetland Site Associations

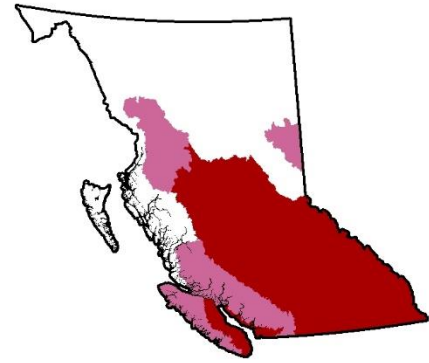
Wm02 Swamp Horsetail – Beaked Sedge

### Key Characters

- **Often emergent** in shallow water
- Stems erect, usually branching above, **not chambered at the base**
- Leaves basal and along the stem, **compound**; primary leaves **once-pinnate** with **7–15 narrow, linear to lanceolate, sharp-toothed leaflets**; **early leaves with leaflets variously dissected** into narrow segments or teeth
- Flowers **tiny, white, in flat-topped or rounded clusters (umbels)** atop long stalks from leaf axils
- Fruits **small, oval to elliptic, 2-parted, ribbed**, in clusters at ends of umbel ribs

### Similar Species

- Douglas' Water-hemlock has **twice-pinnate leaves** with **broader leaflets** and the **stem base is chambered** in longitudinal section. **Highly toxic.**



## Cooley's Hedge-nettle

*Stachys chamissonis* var. *cooleyae*

### Wetland Site Associations

FI51 Red Alder – Salmonberry – Horsetail

### Key Characters

- Entire plant **skunky-scented**, especially when crushed
- Stems erect, **square in x-section**, usually unbranched, bristly-hairy
- Leaves **opposite**, long-stalked, **blades lanceolate or egg-shaped to heart-shaped**, coarsely blunt-toothed, **long-hairy**
- Flowers in **whorls** in an erect, unbranched terminal cluster
- Flowers **magenta-pink, tubular, 2-lipped at the mouth**, to 3 cm long
- Fruits clusters of 4 small nutlets within persistent sepals

### Similar Species

- Mexican Hedge-nettle (*S. mexicana*) is uncommon in coastal BC, **mainly along seacoasts**; it is **more densely shaggy-hairy**, and the **flowers are shorter** (to 1.5 cm long)
- Marsh Hedge-nettle (*S. pilosa*) is widespread in interior BC; it has **unstaked, lanceolate leaves** and **shorter** (to 1.5 cm), **whitish to pale pink flowers**



*Stachys pilosa*



*Stachys mexicana*

# Clasping Twistedstalk

*Streptopus amplexifolius*



### Wetland Site Associations

- FI01 Mountain Alder – Common Horsetail
- FI02 Mountain Alder – Red-osier Dogwood – Lady Fern
- Fm03 Cottonwood – Subalpine Fir – Devil’s-club

### Key Characters

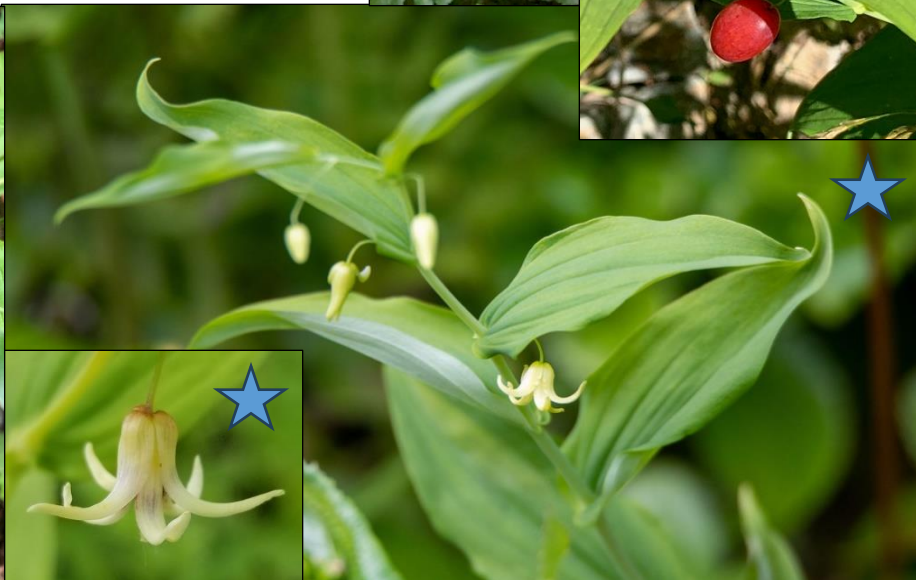
- Stems **branched, erect, zig-zagged**
- Leaves **alternate**, simple, broadly lanceolate to egg-shaped, stalkless, **clasping the stem**
- Flowers small, **greenish-white, bell-shaped, drooping, occurring singly or in pairs in leaf axils** from a **‘kinked’ stalk**; petals **strongly recurved at their tips**
- Fruits **red to purplish, juicy berries**

### Similar Species

- Rosy Twistedstalk is a **lower, less erect plant** with an **unbranched stem**; the **flowers are pinkish**, with **less strongly recurved petals** and an **unkinked flower stalk**
- Fairybells (*Prosartes* spp.) have small **clusters of 1–4 larger, white flowers** at the **stem tips**, and **orange to orange-red berries**



*Prosartes hookeri*



## Rosy Twistedstalk

*Streptopus lanceolatus*

### Wetland Site Associations

Ws10 Western Redcedar – Spruce – Skunk Cabbage

Ws11 Spruce – Subalpine Fir – Skunk Cabbage

### Key Characters

- Stems **unbranched, arching**
- Leaves **alternate**, simple, broadly lanceolate, stalkless, **not clasping the stem**
- Flowers small, **pink, bell-shaped, drooping**, occurring singly in leaf axils; petals slightly **recurved at their tips**
- Fruits **red, juicy berries**

### Similar Species

- Clasping Twistedstalk is a taller, more erect plant with a **branching stem**; the flowers are **greenish-yellow**, with **strongly recurved petals** and a 'kinked' flower stalk
- Fairybells (*Prosartes* spp.) have **branching stems**, small **clusters of 1–4 larger, white flowers** at the stem tips, and **orange to orange-red berries**



## Alaska Aster

*Symphotrichum subspicatum*

(*Aster subspicatus*)

### Wetland Site Associations

FI50 Sitka Willow – False Lily-of-the-valley

### Key Characters

- Represents a species complex, including *S. subspicatum*, *S. chilense*, and *S. novi-belgii*
- Stems erect, **often branching**, leafy
- Leaves **unstaked, linear to lanceolate**, margins smooth to coarsely toothed
- Flowering heads several to numerous, composed of a **yellow disc and pale purplish rays**, subtended by several series of green, oblong to lanceolate bracts (involucral bracts) that are **white towards the base**
- Fruits small, **seed-like achenes**, each with a **tuft of whitish to tawny, hair-like bristles**

### Similar Species

- Leafy-bracted Aster (*Aster foliaceus*) occurs at **higher elevations**; it has one to several **larger, long-stalked flowering heads** and **consistently smooth-margined leaves**
- Subalpine Daisy (*Erigeron glacialis*) occurs at **higher elevations** and has a **single, terminal flowering head** subtended by a **single series of bracts**



## Sticky False-asphodel

*Triantha glutinosa/occidentalis*

### Wetland Site Associations

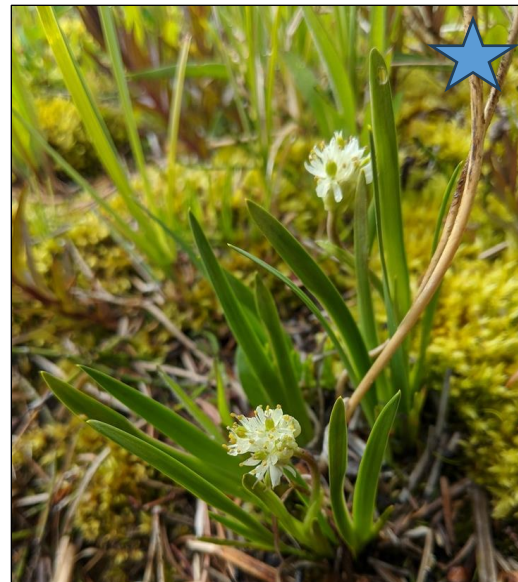
- Wb51 Shore Pine – Crowberry – Tough Peat-moss
- Wb52 Common Juniper – Tufted Clubrush – Rock moss
- Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush
- Wf10 Narrow-leaved Cotton-grass – Peat-moss

### Key Characters

- Stems erect, **densely sticky-glandular**
- Leaves **grass-like**, about half as tall as stems, **sharply keeled and flattened in 1 plane** (as in an iris)
- Flowers **small, white**, in a **narrow, egg-shaped to oblong cluster** at the stem tip
- Fruits **large, erect, egg-shaped, reddish-purple capsules**

### Similar Species

- Northern False Asphodel (*Tofieldia pusilla*) is a **smaller, more delicate, non-glandular species** of **calcareous environments** in the BC interior; it also has **smaller, yellowish-green capsules**



## Seaside Arrow-grass

*Triglochin maritima*

### Wetland Site Associations

Wf10 Hudson Bay Clubrush – Red Hook-moss

### Key Characters

- **Grass-like**; stems **erect**, unbranched, usually exceeding the leaves
- Leaves **long** (to 70 cm), **erect, linear, fleshy, sheathing the base of the stem**
- Flowers **small**, very short-stalked, **numerous in tall erect spikes**; individual flowers **greatly reduced**, petals absent, **subtended by several rounded bracts**, **styles feathery, whitish to reddish**
- Fruits small, **egg-shaped**, greenish, **ribbed**, **6-chambered** capsules

### Similar Species

- Marsh Arrow-grass (*T. palustris*) is a smaller, **more delicate**, and **fewer-flowered** species of the **BC interior**; the **3-chambered** capsules are **longer and narrowly oblanceolate**





## Common Cattail

*Typha latifolia*

Wetland Site Associations

Wm05 Cattail

### Key Characters

- **Emergent, erect, unbranched stems** up to 2.5 m in height
- Leaves long, **erect, flattened** (to 3 cm wide), grass-like, **strongly sheathing** the stem, often exceeding the flower spike
- Flowers in terminal, **2-parted spikes** with the **portions not separated**
- Upper half of spike bears fluffy, yellow-brown **male flowers that are shed early to leave a barren spike**; lower half bears a thick, cylindrical, dark brown, densely flowered spike of female flowers that are **persistent through winter** after flowering
- Fruits tiny nutlets with **long, slender hairs** at the base

### Similar Species

- Narrow-leaved Cattail (*T. angustifolia*) is a problematic invasive species in SW BC (especially the Fraser River estuary); it has **narrower leaves** (0.5-1.2 cm wide) and the **male portion of the flowering spike is separated from the female portion** by short (1-8 cm) length of bare stem



## Stinging Nettle

*Urtica dioica*

### Wetland Site Associations

FI01 Mountain Alder – Common Horsetail

FI02 Cottonwood – Snowberry – Rose

### Key Characters

- Stems erect, unbranched
- **Stems and leaves with abundant stinging hairs**
- Leaves **opposite**, stalked, **egg- or heart-shaped to lanceolate**, with **coarsely toothed margins**
- Flowers small, **inconspicuous**, greenish to purplish, produced in **drooping, catkin-like bunches** from the upper leaf axils
- Fruits **flattened**, rounded, **seed-like achenes**

### Similar Species

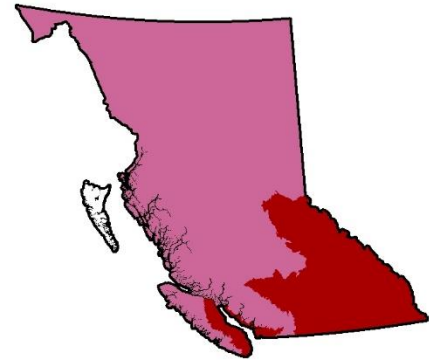
- This is a highly distinctive species in B.C. and is unlikely to be misidentified



## Greater Bladderwort

*Utricularia vulgaris*

(*Utricularia macrorhiza*)



### Wetland Site Associations

- Wm01 Beaked Sedge – Water Sedge
- Wm02 Swamp Horsetail – Beaked Sedge
- Wm03 Awned Sedge
- Wm04 Common Spike-rush
- Wm05 Cattail
- Wm06 Great Bulrush
- Wm51 Three-way Sedge

### Key Characters

- Carnivorous
- **Submerged aquatic, unrooted** and free-floating
- Leaves **large, densely dissected** into **fine, thread-like divisions** with **abundant small bladders** that are often blackish (when filled with prey)
- Flowers **large, yellow, emergent, in clusters** of 6–20 atop erect stems; composed of **two corolla lips, base of lower lip with a hump-like lobe** at the mouth and a **slender appressed spur at the base**
- Fruits small capsules on **recurved stalks**

### Similar Species

- Flat-leaved Bladderwort has **smaller flowers** in **fewer-flowered inflorescences**, and its **leaves are differentiated** into narrowly-dissected chlorophyllous leaves and separate carnivorous leaves that are reduced to whitish, thread-like segments and bladders



## Sitka Valerian

*Valeriana sitchensis*

### Wetland Site Associations

Ws08 Subalpine Fir – Sitka Valerian – Common Horsetail

### Key Characters

- Generally a species of **middle and upper elevations**; occurs **throughout BC**
- **Very strong smelling** with a **pungent odor**, especially in late summer and fall
- Stems **erect**, leafy
- Leaves **opposite**, compound with **5–7 broad, coarsely toothed leaflets**
- Flowers small, **white, tubular**, in a **rounded to flat-topped cluster** at the top of the stem
- Fruits small, dry, seed-like, **ribbed**, with a **tuft of white, feathery hairs** at one end

### Similar Species

- Marsh Valerian (*V. dioica*) is an uncommon species of the B.C. interior; it is a **smaller plant** and has **shorter, ascending stem leaves** with **up to 7 pairs of narrow lobes**



## Green False Hellebore

*Veratrum viride*

### Wetland Site Associations

Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage

### Key Characters

- **Very large, erect, up to 2 m tall. Highly toxic**
- Leaves **large, egg-shaped, prominently parallel-veined, unstalked**, strongly sheathing the stem when young
- Flowers in tall, branched inflorescences; **lateral branches drooping**
- Flowers **greenish, relatively small**, with 6 spreading tepals

### Similar Species

- This is a highly distinctive species in B.C., and is unlikely to be misidentified



## Marsh Violet

*Viola palustris*

### Wetland Site Associations

Wf51 Sitka Sedge – Peat-moss

### Key Characters

- Low-growing, **early-flowering** perennial
- Leaves **all basal or arising directly from the rhizome, long-stalked, heart-shaped**, tip blunt, margins shallowly round-toothed
- Flowers **solitary** along **long, leafless stalks** with a **pair of small bracts at the midpoint**
- Flowers **purplish-white to pale lavender**, lower petal expanded and with thin dark lines in the throat, **lateral petals with sparse hairs**, with a **sac-like spur**
- Fruits egg-shaped, greenish capsules

### Similar Species

- Small White Violet (*V. macloskeyi*) is a smaller species with **white (not purple-tinged) petals**
- Dwarf Marsh Violet (*V. epipsila*) is very similar to Marsh Violet, but the **bracts are placed above the midpoint of the flower stalk**



# 5. Sedges



## Yellow-flowered Sedge

*Carex anthoxantha*

### Wetland Site Associations

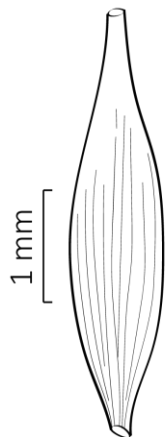
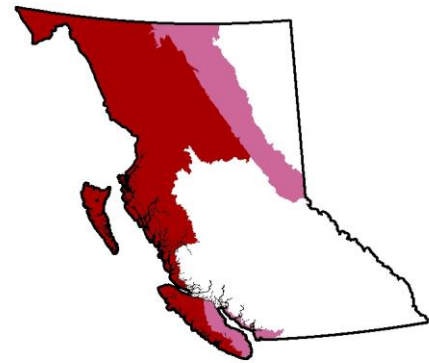
Wf12 Narrow-leaved Cotton-grass – Marsh-marigold

### Key Characters

- Stems erect, arising singly from a delicate rhizome
- Leaves **fine** (to 2 mm wide), grass-like, 2–4 per stem, often produced from sterile stems
- Inflorescence **narrow** (to 3 mm wide), **linear, spike-like**, lacking subtending bracts
- Perigynia **erect, lanceolate to narrowly elliptic, long-pointed**, pale green, veined; female scales **lanceolate, about as long and wide as the perigynia**, dark brown with a green midrib

### Similar Species

- Bristle-stalked Sedge (*C. leptalea*) is **tufted** and has **2–9 egg-shaped, blunt-tipped perigynia** in a **shorter, oblong spike-like inflorescence**



Perigynium



*Carex leptalea*



# Graminoids: Sedges

## Water Sedge

### *Carex aquatilis*

#### Wetland Site Associations

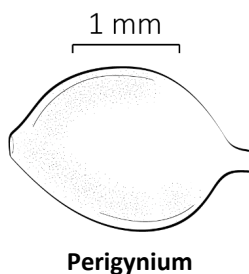
- Wm01 Beaked Sedge – Water Sedge
- Wm02 Swamp Horsetail – Beaked Sedge
- Wf01 Water Sedge – Beaked Sedge
- Wf02 Scrub Birch – Water Sedge
- Wf03 Water Sedge – Peat-moss
- Wf04 Barclay's Willow – Water Sedge – Glow Moss
- Wf05 Slender Sedge – Common Hook-moss
- Wf07 Scrub Birch – Buckbean – Shore Sedge
- Wf10 Hudson Bay Clubrush – Red Hook-moss
- Wf13 Narrow-leaved Cotton-grass – Shore Sedge
- Ws04 Drummond's Willow – Beaked Sedge
- Ws05 MacCalla's Willow – Beaked Sedge
- Wb05 Black Spruce – Water Sedge – Peat-moss
- Wb06 Tamarack – Water Sedge – Fen Moss
- Wb07 Lodgepole Pine – Water Sedge – Peat-moss
- Wb08 Black Spruce – Soft-leaved Sedge – Peat-moss
- Wb10 Lodgepole Pine – Few-flowered Sedge – Peat-moss
- Wb11 Black Spruce – Buckbean – Peat-moss

#### Key Characters

- Stems erect, to 150 cm tall, **rhizomatous, often forming extensive colonies**
- Leaves flat, **3–10 mm wide**, lax, often blue-tinged; **sheaths brown-tinged at the mouth**
- Inflorescence of several elongate, cylindrical female spikes in the axils of the upper leaves below an erect male spike at the top of the stem; female spikes **erect and short-stalked**
- Perigynia 2-3.5 mm, **egg-shaped**, flattened, **rounded at the tip, unbeaked to short-beaked**, hairless; female scales egg-shaped, **blackish or brown with a green midrib, shorter than the perigynia**

#### Similar Species

- Sitka Sedge is **tufted** and has **broader, greener leaves** and **long-stalked, nodding lower female spikes**
- Kellogg's Sedge (*C. kelloggii*) is a **lower-growing species** (to 80 cm tall) that is **densely tufted** and often has a more compact inflorescence; the **leaves are narrower (1–3 mm wide)** and have **brown-spotted sheaths**



## Awned Sedge

*Carex atherodes*

### Wetland Site Associations

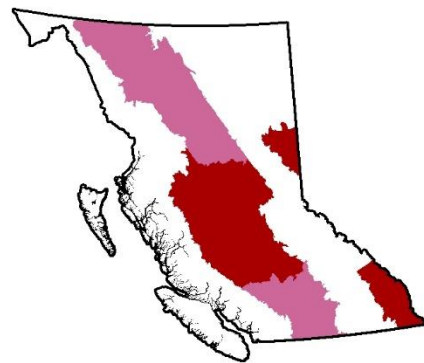
Wm03 Awned Sedge

### Key Characters

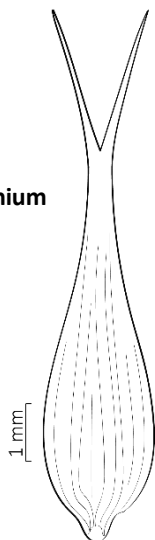
- Stems erect, to 125 cm tall, rhizomatous, **often forming extensive colonies**
- Leaves flat, grass-like, long-sheathed, **soft-hairy**; sheaths **soft-hairy, reddish towards the stem base, becoming shredded into thread-like filaments**
- Inflorescence of 2–5 unstalked, cylindrical, erect to ascending spikes from upper leaf axils, with several erect, spike-like male spikes atop of stem
- Perigynia **large** (9–16 mm), **ascending**, lanceolate to egg-shaped with a **long, deeply 2-pronged beak**, strongly veined, greenish; female scales lanceolate, **awn-tipped**, straw-coloured, about as long as the perigynia

### Similar Species

- Beaked Sedge has **spreading perigynia** with much **shorter prongs at the tip of the beak**, and **lacks soft hairs on the leaves and sheaths**



Perigynium



## Cordroot Sedge

*Carex chordorrhiza*

### Wetland Site Associations

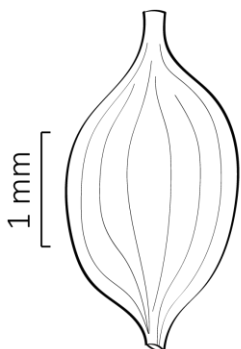
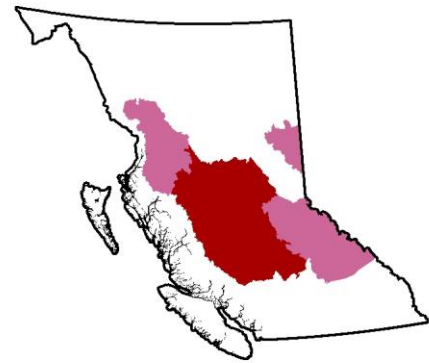
- Wf06 Slender Sedge - Buckbean
- Wf07 Scrub Birch – Buckbean – Shore Sedge
- Wf08 Shore Sedge – Buckbean – Hook-moss
- Wf10 Hudson Bay Clubrush – Red Hook-moss

### Key Characters

- Stems erect, arising singly from a **trailing above-ground stolon**
- Leaves short, flat, narrow, grass-like, 1–3 per stem, often produced from sterile stems
- Inflorescence a **tight aggregation** of 3–5 small (to 8 mm long), **few-flowered**, stalkless, egg-shaped spikes; usually **appearing as a single spike**
- Perigynia **egg-shaped, short-beaked**, often brownish, **inflated**, strongly veined; female scales egg-shaped, pointed, **slightly longer than the perigynia, brown with whitish margins**

### Similar Species

- Spike-rushes (*Eleocharis* spp.) **lack perigynia** (achenes are exposed and usually subtended by short bristle-like filaments) and have a **single, spike-like inflorescence** without individual spikes



Perigynium



## Soft-leaved Sedge

*Carex disperma*

### Wetland Site Associations

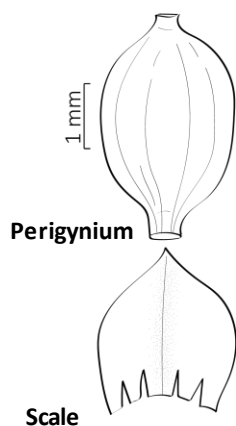
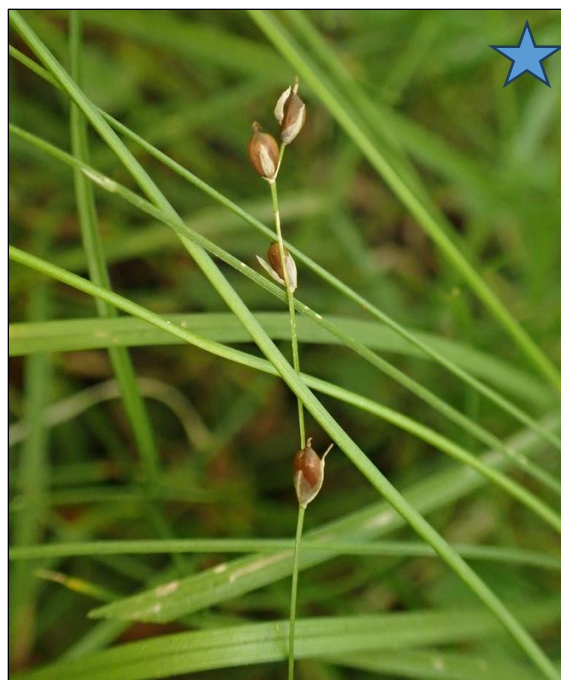
- Wb05 Black Spruce – Water Sedge – Peat-moss
- Wb08 Black Spruce – Soft-leaved Sedge – Peat-moss
- Wb09 Black Spruce – Common Horsetail – Peat-moss

### Key Characters

- Stems **loosely tufted, slender, weak**, usually drooping, to 60 cm tall
- Leaves **very slender**, flattened, grass-like, to 1.2 mm wide
- Inflorescence of **several well-separated clusters of 1–6 nearly stalkless perigynia**; lowest spike subtended by **fine bristle-like bract**
- Perigynia **pale green to pale brown**, egg-shaped, **tip rounded to short-pointed, beakless, inflated**; female scales egg-shaped, pointed, **pale, shorter than the perigynia**

### Similar Species

- Three-seeded Sedge (*C. trisperma*) is a similarly slender sedge of bog and fens, but the **lowest 1–2 clusters of perigynia are subtended by an elongate, leaf-like bract** as long as the inflorescence



## Inflated Sedge

*Carex exsuccata*

### Wetland Site Associations

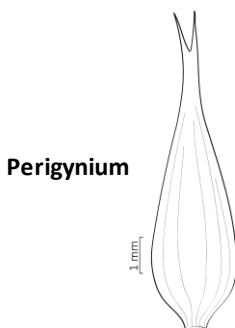
Wm51 Three-way Sedge

### Key Characters

- Stems erect, to 100 cm tall, rhizomatous, **often forming extensive colonies**
- Leaves **firm, coarse**, flat, to 6 mm wide, **margins rolled under**; leaf sheaths at base of stem **shredded into thread-like filaments**
- Inflorescence of **several robust, cylindrical female spikes** in the axils of the upper leaves below 2-3 erect male spikes at the top of the stem; female spikes erect to ascending, **unstaked**, well-separated, **with a spiky appearance** from the **spreading perigynia beaks**
- Perigynia 7-10 mm, **lanceolate** with a **long 2-pronged beak**, **inflated, firm, strongly veined**, yellowish- to reddish-brown; female scales **shorter than the perigynia**

### Similar Species

- Beaked Sedge has **broader, spreading perigynia** (vs. ascending perigynia in Inflated Sedge) and **broader leaves** that **lack the shredded, filamentous leaf sheaths**
- Lesser Bladder Sedge (*C. vesicaria*) is very similar to Inflated Sedge, but **has shorter, broader perigynia** (to 7.5 mm long) with a **more abruptly contracted beak**; it is a species of the **southern interior** of BC



Perigynium



## Slender Sedge

*Carex lasiocarpa*

### Wetland Site Associations

- Wf05 Slender Sedge – Common Hook-moss
- Wf06 Slender Sedge – Buckbean
- Wf10 Hudson Bay Clubrush – Red Hook-moss
- Wf53 Slender Sedge – White Beak-rush

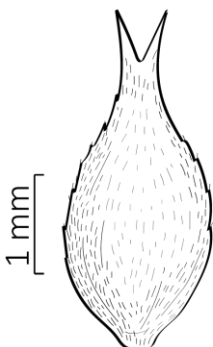


### Key Characters

- Stems **very slender**, erect, to 120 cm tall
- Leaves **very narrow** (to 2 mm wide), **strongly inrolled**, **firm**, **wiry**, often exceeding the stems
- Inflorescence of 2–3 **well-separated**, erect, unstalked, oblong to cylindrical female spikes below 1–2 linear, erect male spikes at the stem tip; female spikes subtended by **erect, wiry leaf-like bracts**
- Perigynia egg-shaped with a 2-pronged beak, **short-hairy**, **inflated**, green to brownish; female scales about as long as the perigynia, lanceolate, **long-pointed to awned**, purplish-brown with a green midrib and whitish margins

### Similar Species

- Woolly Sedge (*C. pellita*) has similar hairy perigynia, but the **leaves are flatter and grass-like** and the **leafy bracts below the spikes are keeled**



Perigynium



## Shore Sedge

### *Carex limosa*

#### Wetland Site Associations

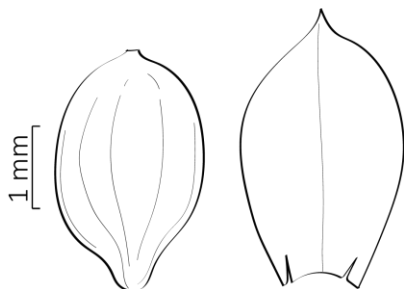
- Wf07 Scrub Birch – Buckbean – Shore Sedge
- Wf08 Shore Sedge – Buckbean – Hook-moss
- Wf09 Few-flowered Spike-rush – Hook-moss
- Wf10 Hudson Bay Clubrush – Red Hook-moss
- Wf11 Tufted Clubrush – Star Moss
- Wf13 Narrow-leaved Cotton-grass – Shore Sedge
- Wb11 Black Spruce – Buckbean – Peat-moss
- Wb12 Scheuchzeria – Peat-moss
- Wb13 Shore Sedge – Buckbean – Peat-moss

#### Key Characters

- Stems **solitary**, erect, **from long slender rhizomes**
- Leaves deeply channelled, grass-like, 1–3 per stem, often produced from sterile stems
- Inflorescence of **1–3 long-stalked, dangling, oblong female spikes** below a single erect male spike; lowest spike with a **leaf-like bract** at the base of the stalk
- Perigynia egg-shaped, **rounded at the tip, unbeaked**, **pale blue-green**; female scales rounded to pointed, **pale brown**, **about as long and wide as the perigynia**

#### Similar Species

- Poor Sedge has **longer, narrower female scales** that are longer than the perigynia, giving the spikes a **bristly appearance**
- Many-flowered Sedge has **blackish female scales** and is restricted to **coastal environments**



Perigynium

Scale



## Pale Sedge

*Carex livida*

### Wetland Site Associations

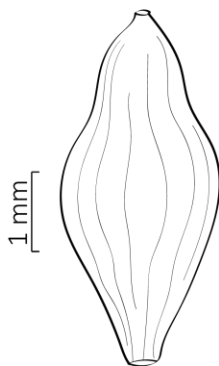
- Wf10 Hudson Bay Clubrush – Red Hook-moss
- Wb51 Shore Pine – Crowberry – Tough Peat-moss
- Wb52 Common Juniper – Tufted Clubrush – Rock Moss
- Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

- Stems **solitary**, erect or arching, **strongly bluish**, from **long slender rhizomes**
- Leaves flat, grass-like, **strongly bluish**, often produced from sterile stems
- Inflorescence of **1–3 cylindrical spikes**, lowest spike short- to long-stalked, uppermost spike nearly stalkless; lowest spike subtended by a **long, erect, leaf-like bract**
- Perigynia elliptic with a **narrow, rounded tip**, **slightly inflated**, **pale blue-green**; female scales egg-shaped, **slightly shorter than the perigynia**, **purple-brown with a green midrib**

### Similar Species

- Shore Sedge lacks the strong bluish colour of this species, and has **long-stalked, dangling, oblong female spikes** with **shorter, broader, egg-shaped perigynia** and **light brown female scales**



Perigynium





## Poor Sedge

### *Carex magellanica*

#### Wetland Site Associations

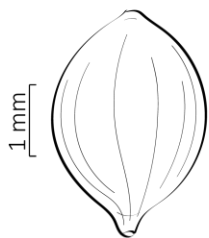
Wf13 Narrow-leaved Cotton-grass – Shore Sedge

#### Key Characters

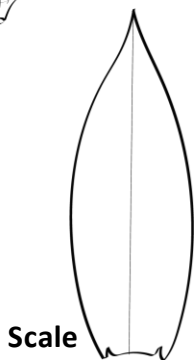
- Stems **solitary**, erect, **from long slender rhizomes**
- Leaves flat, grass-like, 3–9 per stem, often produced from sterile stems
- Inflorescence of **2–4 long-stalked, dangling, oblong female spikes** below a single erect male spike; lower spikes with long leaf-like bracts at the bases of their stalks
- Perigynia broadly egg-shaped, **unbeaked** or nearly so, **pale blue-green**; female scales **lanceolate, long-pointed, reddish-brown, longer and narrower than the perigynia**, giving the spike a **bristly appearance**

#### Similar Species

- Shore Sedge has **shorter, broader female scales** that are **about as long as the perigynia** and **do not give the spikes a bristly appearance**



Perigynium



Scale



## Few-flowered Sedge

*Carex pauciflora*

### Wetland Site Associations

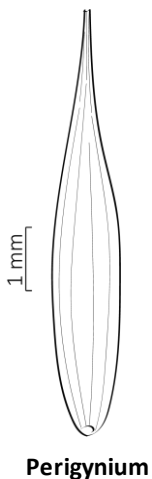
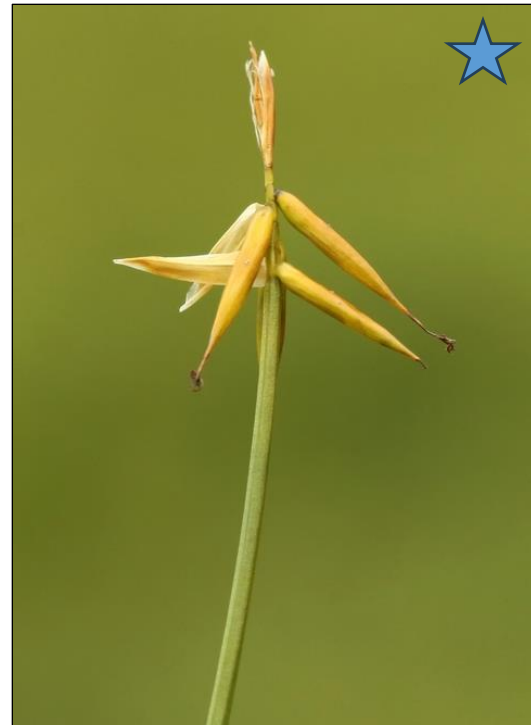
- Wb02 Lodgepole Pine – Bog-rosemary – Peat-moss
- Wb04 Western Hemlock – Cloudberry – Peat-moss
- Wb10 Lodgepole Pine – Few-flowered Sedge – Peat-moss
- Wb11 Black Spruce – Buckbean – Peat-moss

### Key Characters

- Stems **solitary**, erect, **slender, weak**, from **long slender rhizomes**
- Leaves narrow, erect, flat to channeled, 1–3 per stem
- Inflorescence a small, **solitary spike** with **1–6 perigynia** subtending a small, terminal, erect male portion
- Perigynia **spreading to reflexed, linear-lanceolate**, to 7.5 mm long, long-pointed, **yellowish-green**; female scales **lanceolate, straw-coloured and translucent**, about as long and wide as the perigynia, sometimes short-awned, **deciduous**

### Similar Species

- Few-seeded Fen Sedge (*C. microglochin*) occurs in **calcareous habitats** and has **smaller** (to 5 mm), **more sharply reflexed perigynia** that possess a **protruding bristle** from the mouth



## Many-flowered Sedge

*Carex pluriflora*

### Wetland Site Associations

Wb51 Shore Pine – Crowberry – Tough Peat-moss

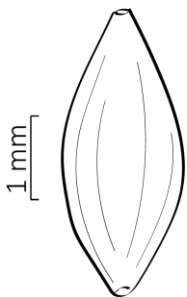
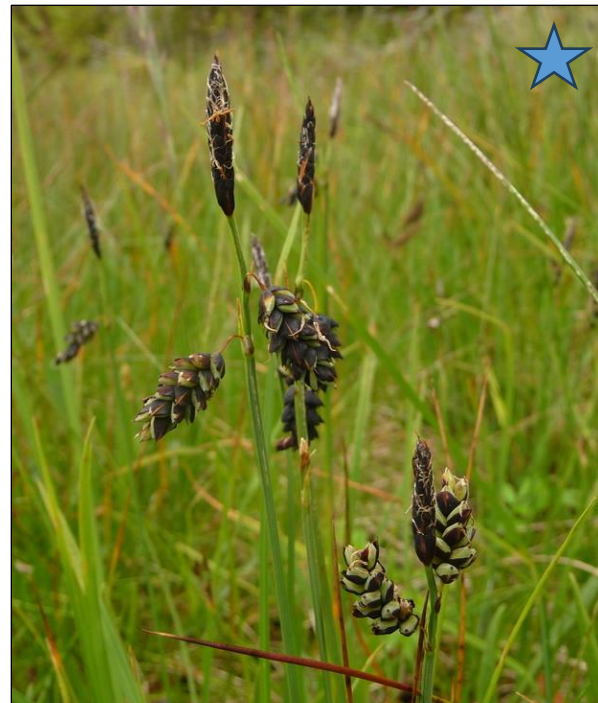
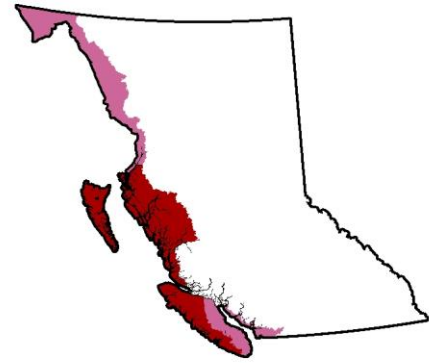
Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

- Stems **solitary**, erect, **from long slender rhizomes**
- Leaves flat, grass-like, 3–5 per stem, often produced from sterile stems
- Inflorescence of **1–3 long-stalked, dangling, oblong female spikes** below a single erect male spike; lowest spike with a **short leaf-like bract** at the base of the stalk
- Perigynia elliptic, **rounded to blunt-pointed at the tip, unbeaked, pale blue-green**; female scales pointed, sometimes short-awned, **blackish, about as long and wide as the perigynia**

### Similar Species

- Shore Sedge has **pale brownish female scales** and is **widespread throughout most of BC**
- Poor Sedge has **longer, narrower female scales** that are longer than the perigynia, giving the spikes a **bristly appearance**



Perigynium



## Sitka Sedge

### *Carex sitchensis*

#### Wetland Site Associations

- Wm50 Sitka Sedge – Water-parsley
- Wm51 Three-way Sedge
- Wf03 Water Sedge – Peat-moss
- Wf04 Barclay's Willow – Water Sedge – Glow Moss
- Wf51 Sitka Sedge – Peat-moss
- Wf52 Sweet Gale – Sitka Sedge
- Ws02 Mountain Alder – Hardhack – Sitka Sedge
- Ws06 Sitka Willow – Sitka Sedge
- Ws50 Hardhack – Sitka Sedge
- Wb04 Western Hemlock – Cloudberry – Peat-moss
- Wb10 Lodgepole Pine – Few-flowered Sedge – Peat-moss
- Wb51 Shore Pine – Crowberry – Tough Peat-moss

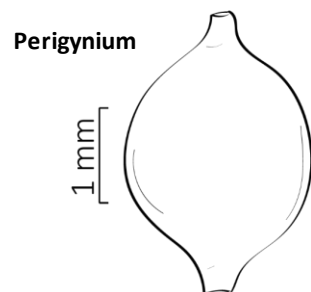


#### Key Characters

- Stems erect, to 150 cm tall, **tufted, often forming extensive colonies**
- Leaves flat, **5–10 mm wide**, lax, green; **sheaths brown-tinged at the mouth**
- Inflorescence of several elongate, cylindrical female spikes in the axils of the upper leaves below an erect male spike at the top of the stem; lower female spikes **drooping and long-stalked**
- Perigynia 2–3.5 mm, **egg-shaped, flattened, rounded at the tip, unbeaked to short-beaked**, hairless; female scales egg-shaped, **blackish or brown with a green midrib, shorter than the perigynia**

#### Similar Species

- Water Sedge is **rhizomatous** and has **narrower, usually blue-tinged leaves** and **short-stalked, erect lower female spikes**
- Kellogg's Sedge (*C. kelloggii*) is a **lower-growing species** (to 80 cm tall) that is **densely tufted** and has a more compact, erect inflorescence; the **leaves are narrower (1–3 mm wide)** and have **brown-spotted sheaths**



## Sparse-leaved Sedge

*Carex tenuiflora*

### Wetland Site Associations

Wb08 Black Spruce – Soft-leaved Sedge – Peat-moss

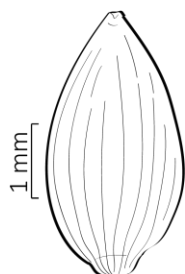
Wb11 Black Spruce – Buckbean – Peat-moss

### Key Characters

- Stems **loosely tufted, slender**, weak, erect, to 50 cm tall
- Leaves **slender**, flattened, grass-like, to 2 mm wide
- Inflorescence of **3 small, closely aggregated, stalkless, rounded spikes of 3–15 perigynia**; lowest spike **lacks a subtending bract**
- Perigynia **egg-shaped**, tip pointed but not beaked, **grey-green to golden-green, slightly inflated, veined**; female scales **green with a broad white margin**, as long as the perigynia

### Similar Species

- Two-seeded Sedge has **well-separated clusters of 1–6 perigynia**; lowest cluster subtended by a **short bristle-like bract**
- Norwegian Sedge (*C. media*) has similarly aggregated spikes, but is a larger (to 70 cm tall) species with **larger, stalked spikes** and a **leaf-like bract subtending the inflorescence**; the female scales are **blackish with a green midrib** and are **shorter than the perigynia**



Perigynium



*Carex media*



## Beaked Sedge

*Carex utriculata*

### Wetland Site Associations

- Wm01 Beaked Sedge – Water Sedge
- Wm02 Swamp Horsetail – Beaked Sedge
- Wf01 Water Sedge – Beaked Sedge
- Wf02 Scrub Birch – Water Sedge
- Wf05 Slender Sedge – Common Hook-moss
- Ws03 Bebb's Willow – Bluejoint Reedgrass
- Ws04 Drummond's Willow – Beaked Sedge
- Ws05 MacCalla's Willow – Beaked Sedge
- Ws06 Sitka Willow – Sitka Sedge

### Key Characters

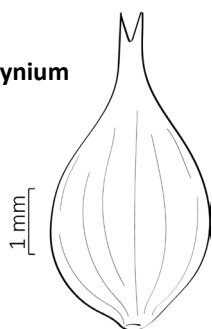
- Stems erect, to 120 cm tall, rhizomatous, **often forming extensive colonies**
- Leaves **firm, coarse, flat**, to 15 mm wide, **margins rolled under**
- Inflorescence of **several robust, cylindrical female spikes** in the axils of the upper leaves below 2–5 erect male spikes at the top of the stem; female spikes erect, **unstaked**, well-separated, **with a spiky appearance** from the **spreading perigynia beaks**
- Perigynia 5–11 mm, egg-shaped with a **long 2-pronged beak, inflated, firm, strongly veined**, greenish to reddish; female scales **much shorter than the perigynia**

### Similar Species

- Swollen Beaked Sedge (*C. rostrata*) is a similar but rarer species; it has **narrower (to 7 mm wide), blue-tinged leaves with tiny bumps ('papillae')** on the upper surface and **inrolled leaf margins**
- Inflated Sedge (*C. exsiccata*) has **more slender, ascending perigynia** and **shredded, fibrous lower leaf sheaths**



Perigynium



## Three-way Sedge *Dulichium arundinaceum*

### Wetland Site Associations

Wm51 Three-way Sedge

### Key Characters

- Stems erect, **leafy**, to 100 cm tall, arising singly from **extensive rhizomes**, often forming extensive colonies
- Leaves **strongly 3-ranked** (i.e., spreading in 3 directions), **flat, firm, coarse**, to 8 mm wide, **little reduced towards the top of the stem**
- Inflorescences **clusters of 1–17 linear, yellowish-green, slightly flattened, dense-flowered, stalked, pointed spikes** from the **leaf axils**
- Fruits tiny, **long-beaked**, seed-like achenes subtended by **barbed, brownish bristles** that are **much longer than the achene body**

### Similar Species

- This species is highly distinctive, particularly due to its strongly 3-ranked leaf arrangement and spikelet structure



# 6. Grasses





## Bluejoint Reedgrass

### *Calamagrostis canadensis*

#### Wetland Site Associations

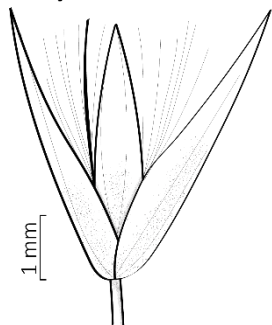
Wm01	Beaked Sedge – Water Sedge
Wm03	Awned Sedge
Wf04	Barclay's Willow – Water Sedge – Glow Moss
Ws01	Mountain Alder – Skunk Cabbage – Lady Fern
Ws02	Mountain Alder – Hardhack – Sitka Sedge
Ws03	Bebb's Willow – Bluejoint Reedgrass
Ws04	Drummond's Willow – Beaked Sedge
Ws05	MacCalla's Willow – Beaked Sedge
Ws06	Sitka Willow – Sitka Sedge
Ws09	Black Spruce – Skunk Cabbage – Peat-moss
FI05	Drummond's Willow – Bluejoint Reedgrass
FI50	Sitka Willow – False Lily-of-the-valley

#### Key Characters

- Stems erect, to 150 cm tall; plants tufted to rhizomatous, **often forming extensive colonies**
- Leaves roughened above, narrow and **lax, tip usually drooping**, often slightly blue-tinged; ligules 3–8 mm long, **with ragged apices**
- Inflorescence 10–25 cm long, erect or drooping at the tip, panicate
- Spikelets **1-flowered**; **glumes exceeding the lemma** and often purple-tinged; **lemma surrounded by callus hairs** that are as long as the lemma, short-awned with **awn attached at mid-point of lemma**

#### Similar Species

- Reed Canarygrass (*Phalaris arundinacea*) is similar when not flowering, but is **a larger and more robust species** (to 2.5 m tall) **with broader, firmer leaves** that have a **rounded ligule**; the **lemmas lack long callus hairs**
- Slimstem Reedgrass (*C. stricta*) is a **smaller, more strongly rhizomatous species** that does not usually form colonies; it has a **narrow, erect inflorescence** and **narrower, usually stiffly erect and inrolled leaves**



Spikelet

## Blue Wildrye

*Elymus glaucus*

### Wetland Site Associations

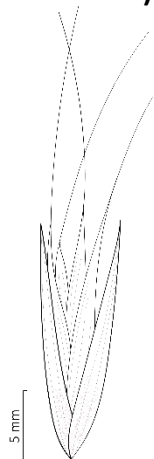
- FI50 Sitka Willow – False Lily-of-the-valley
- FI51 Red Alder – Salmonberry – Horsetail
- Fm02 Cottonwood – Spruce – Red-osier Dogwood
- Fm50 Cottonwood – Red Alder – Salmonberry

### Key Characters

- Stems erect, to 180 cm tall, **tufted**, smooth, **blue-tinged**
- Leaves **flat**, lax, **blue-tinged**, to 13 mm wide, not reduced in size up the stem, with **ear-like flaps** ('auricles') at the blade-sheath junction; ligules short, flat
- Inflorescence a tall, slender, **erect to slightly nodding** spike 5–21 cm long
- Spikelets **paired** at spike nodes, unstalked, 2- to 4-flowered; glumes narrow, lanceolate, long-pointed, often short-awned; lemmas narrow, lanceolate, **usually extended into an awn 1–25 mm long**

### Similar Species

- Quackgrass (*E. repens*) is an exotic, invasive species that is **strongly rhizomatous** and has **solitary spikelets** at each node with **unawned to short-awned (to 4 mm) lemmas**



Spikelet



*Elymus repens*



## Narrow-leaved Cotton-grass

*Eriophorum angustifolium*

### Wetland Site Associations

Wb02	Lodgepole Pine – Bog-rosemary – Peat-moss
Wb04	Western Hemlock – Cloudberry – Peat-moss
Wb10	Lodgepole Pine – Few-flowered Sedge – Peat-moss
Wb13	Shore Sedge – Buckbean – Peat-moss
Wb51	Shore Pine – Crowberry – Tough Peat-moss
Wb52	Common Juniper – Tufted Clubrush – Rock Moss
Wb53	Shore Pine – Yellow-cedar – Tufted Clubrush
Wf09	Few-flowered Spike-rush – Hook-moss
Wf11	Tufted Clubrush – Star Moss
Wf12	Narrow-leaved Cotton-grass – Marsh-marigold
Wf13	Narrow-leaved Cotton-grass – Shore Sedge
Wf50	Narrow-leaved Cotton-grass – Peat-moss



### Key Characters

- Stems erect, to 30 cm tall, **from creeping rhizomes**
- Leaves flat with a keeled tip, grass-like, to 6 mm wide, with **brownish or blackish sheaths**
- Inflorescences egg-shaped, **2–10** in terminal cluster, lower inflorescences **long-stalked and drooping**, with **smooth stalks**; terminal inflorescence cluster **subtended by 1–3 erect, leaf-like bracts with blackish sheaths**
- Flowers each with **numerous long, whitish, filamentous bristles** that much exceed **the blackish scales**, giving each inflorescence a **cottony appearance**
- Fruits tiny black, seed-like achenes with **persistent long, white, cottony bristles**

### Similar Species

- Green-keeled Cotton-grass (*E. viridicarinatum*) has **green leaf sheaths, roughened inflorescence stalks, and prominent pale midribs on the floral scales** that are sometimes extended into a short awn



## Chamisso's Cotton-grass

*Eriophorum chamissonis*

### Wetland Site Associations

Wf53 Slender Sedge – White Beak-rush

### Key Characters

- Stems erect, to 30 cm tall, **solitary from creeping rhizomes**
- Leaves 1–3 on lower stem, **keeled, narrow**, grass-like, to 2 mm wide
- Inflorescence a **solitary** spike at stem tip, egg-shaped, lacking a subtending bract
- Flowers each with **numerous long filamentous bristles** that much exceed **the greyish or blackish, pale-margined scales**, giving each inflorescence a **cottony appearance**; filamentous bristles whitish with a variable **tawny to rusty-brown tinge**
- Fruits tiny black, seed-like achenes with **persistent long, cottony, rusty-tinged whitish bristles**

### Similar Species

- Scheuchzer's Cotton-grass (*E. scheuchzeri*) **lacks the rusty-brown tinge to the floral bristles** and the **scales lack whitish margins**
- Short-anthered Cotton-grass (*E. brachyantherum*) is similar to *E. scheuchzeri*, but is **densely tufted**



## Foxtail Barley

*Hordeum jubatum*

### Wetland Site Associations

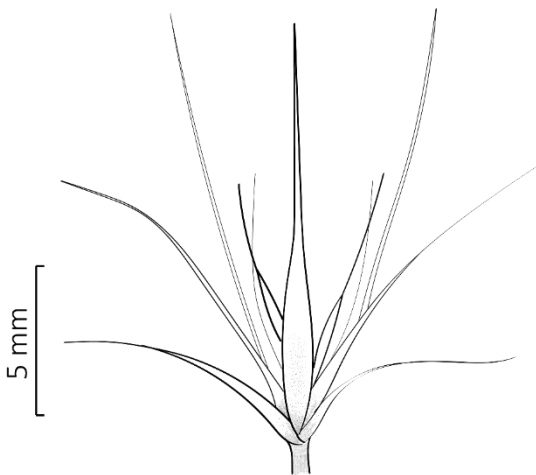
Wm07 Baltic Rush

### Key Characters

- Stems erect, **densely tufted**, often soft-hairy, to 50 cm tall; plants usually with an overall **blue-grey appearance**
- Leaves flat, to 5 mm wide, **short-hairy at base of the blade**; ligules **short and flat**
- Inflorescence a **drooping, densely flowered spike** to 10 cm long, **purple-tinged**; **disarticulating at seed dispersal**
- Glumes and lemmas narrow and **extended into long (to 9 cm long), stiff, roughened awns**

### Similar Species

- Meadow Barley (*H. brachyantherum*) has **more slender, erect to slightly nodding spikes**; florets with **shorter awns on the glumes and lemmas** (to 17 mm long)



Spikelet



## Kentucky Bluegrass

*Poa pratensis*

### Wetland Site Associations

Fl07 Water Birch - Rose

Fm01 Cottonwood – Snowberry – Rose

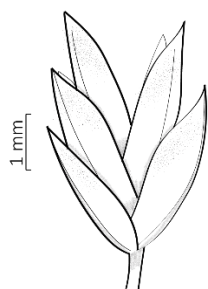


### Key Characters

- Stems erect, to 100 cm tall, **rhizomatous to loosely tufted**, smooth
- Leaves flat to folded, to 4 mm wide, **leaf tips folded** ('prow-shaped'), mostly on lower portion of stem, **upper stem leaves reduced**; ligules rounded and jagged; **leaf sheaths open for 50–75% of their length**
- Inflorescences **paniculate**, to 18 cm long, lowest node with 3–5 branches, pyramid-shaped, **becoming nodding and straw-coloured at seed dispersal**
- Spikelets **narrowly egg-shaped**, pointed, flattened, 3- to 5-flowered, 4–7 mm long; glumes broadly lanceolate, pointed, keeled, shorter than the lemmas; lemmas narrowly egg-shaped, pointed, with a **tuft of cobwebby hairs at the base**, keel **short-hairy**, with a **whitish margin and purplish submarginal band**

### Similar Species

- Fowl Bluegrass (*Poa palustris*) has **smaller (3–5 mm)**, lanceolate florets in a more **sparsely flowered inflorescence**; the **leaf sheaths are open for > 75% of their length**



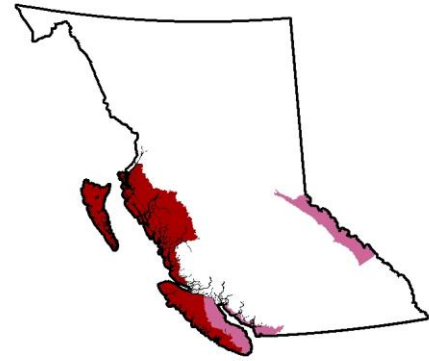
Spikelet



## Alaska Bentgrass

*Podagrostis aequivalvis*

(*Agrostis aequivalvis*)



### Wetland Site Associations

Wb52 Common Juniper – Tufted Clubrush – Rock moss

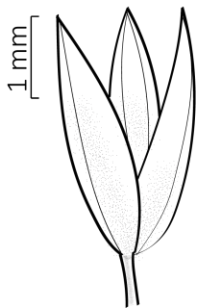
Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush

### Key Characters

- **Fine, delicate grass**
- Stems erect, **rhizomatous**, to 90 cm tall
- Leaves fine, **mostly on the lower stem**, flat, to 2.5 mm wide; sheaths smooth and **open to the base**
- Inflorescence an erect or slightly drooping, open panicle 5–15 cm long; branches **widely divergent, sparsely flowered**
- Spikelets **purplish, small, 1-flowered**; glumes **2.3–4.3 mm long, of similar length**; lemmas hairless, **unawned**, about as long as the glumes, pointed; **palea pointed**

### Similar Species

- Alpine Bentgrass (*P. humilis*) is very similar and occurs in similar habitats, but is a smaller species (usually < 20 cm tall) with **rounded paleae** and **smaller glumes** (1.6–2.3 mm) that are **often slightly unequal**



Spikelet



*Podagrostis humilis*



## Mountain Hairgrass

*Vahlodea atropurpurea*

### Wetland Site Associations

Wf13 Narrow-leaved Cotton-grass – Shore Sedge

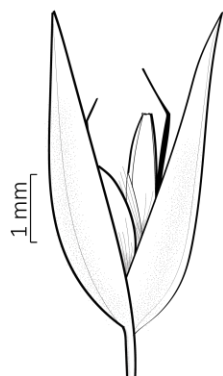
Wf50 Narrow-leaved Cotton-grass – Peat-moss

### Key Characters

- Stems erect, to 80 cm tall, **loosely tufted**
- Leaves **flat with folded tips**, lax, to 8.5 mm wide, **often soft-hairy**; lower sheaths stiff-hairy; ligules round-tipped and fringed with fine hairs
- Inflorescence to 20 cm long, panicleate, **strongly drooping**
- Spikelets **2-flowered**; glumes longer than the lemmas, keeled, **purplish**; lemmas with a **single bent awn from the midpoint**, bases with **bristle-like hairs** that are **about half as long as the lemma**

### Similar Species

- Hairgrasses (*Deschampsia* spp.) have **narrower (< 3 mm)**, **folded leaves** and **pointed ligules**



Spikelet





# 7. Rushes



## Common Spike-rush

*Eleocharis palustris*

### Wetland Site Associations

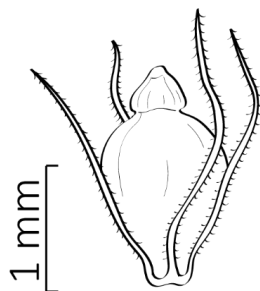
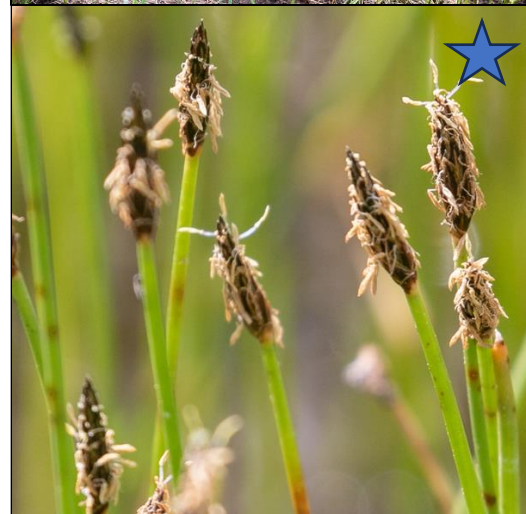
Wm04 Common Spike-rush

### Key Characters

- Often grows **emergent from the water**
- Stems erect, leafless, to 115 cm tall, arising singly from a rhizome
- Inflorescence a **small, lanceolate to elliptic, pointed spike** of 30+ flowers
- Fruits globose, seed-like, dark brown achenes topped by a **hat-like beak**, subtended by **4 bristles**; floral scales lanceolate to egg-shaped, dark brown (often with a green midrib), **lowermost much shorter than the spike**

### Similar Species

- This is the most common representative of a complex of 3–4 species in BC that are extremely similar and difficult to identify; the name *E. palustris* may be applied to this group as a whole
- Blunt Spike-rush (*E. obtusa*) is a **shorter** (to 50 cm tall), **densely tufted** species with **oblong, round-tipped spikes**



Achene



*Eleocharis obtusa*



## Few-flowered Spike-rush

*Eleocharis quinqueflora*

### Wetland Site Associations

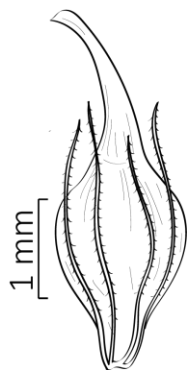
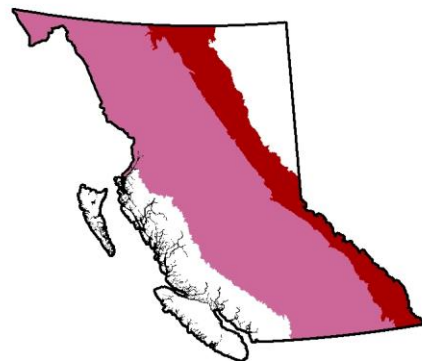
Wf12 Narrow-leaved Cotton-grass – Marsh-marigold

### Key Characters

- Restricted to areas of **calcareous soils**
- Stems erect, **leafless**, to 35 cm tall, arising singly from a rhizome
- Inflorescence a **small, egg-shaped spike** of 3–10 flowers
- Fruits globose, seed-like, dark brown achenes topped by a **slender beak**, subtended by **3–6 bristles**; floral scales lanceolate to egg-shaped, brown, **lowermost about as long as spike**

### Similar Species

- Elliptic Spike-rush (*E. elliptica*) is also associated with calcareous habitats; it has **taller (to 90 cm) stems** with **rounder spikes** and lower scales that are **white-margined, notched, and shorter than the spike**
- Dwarf Clubrush (*Trichophorum pumilum*) often grows with this species in calcareous habitats; it is **smaller** (to 14 cm tall) and has **smaller spikes** that are subtended by a **short, erect, bristle-like bract**



Achene



*Eleocharis elliptica*



*Trichophorum pumilum*



## Baltic Rush

*Juncus balticus*

### Wetland Site Associations

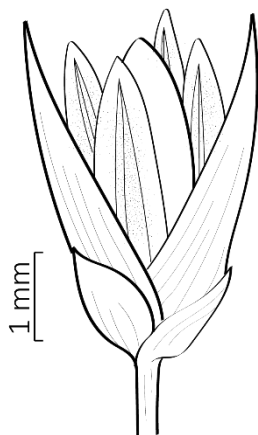
Wm07 Baltic Rush

### Key Characters

- Stems erect, slender, **wiry, leafless**, dark green, to 60 cm tall, **produced singly from long rhizomes**
- Inflorescence a **loosely flowered, laterally produced cluster of long-stalked florets** from a single point **about 2/3 up the stem**
- Florets with 6 **dark-brown, pale-margined, lanceolate tepals** subtending 6 pale yellow anthers and a small conical ovary; stigma reddish, 3-branched
- Capsules **egg-shaped, rounded at the tip**, dark brown to black, **about as long as the tepals**

### Similar Species

- Common Rush (*J. effusus*) is a **larger** (to 120 cm tall), **coarser species** with **densely tufted stems** and often **paler brown tepals**
- Thread Rush (*J. filiformis*) has **more slender stems** and the **inflorescence is produced at the midpoint of the stem**



Floret



## White Beak-rush

*Rhynchospora alba*

### Wetland Site Associations

Wf11 Tufted Clubrush – Star Moss

Wf53 Slender Sedge – White Beak-rush

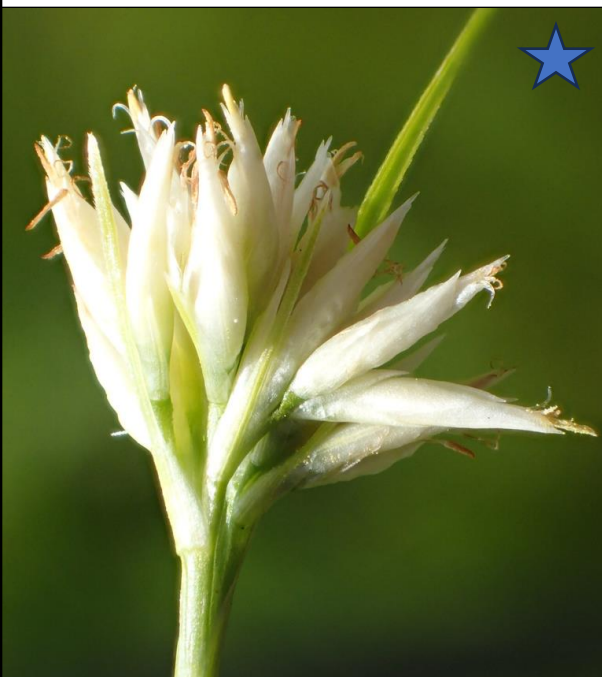
Wb52 Common Juniper – Tufted Clubrush – Tock Moss

### Key Characters

- Stems erect, to 50 cm tall, densely tufted, **leafy**
- Leaves **fine**, to 1 mm wide, grass-like, flat to keeled
- Inflorescences **1–3 per stem**, both terminal and long-stalked from leaf axils, composed of clusters of several narrow, **whitish** (often becoming brown-tinged), 2- to 3-flowered spikes; terminal cluster usually exceeding the height of the leaves
- Fruits tiny, **flattened, beaked, pale brown**, seed-like achenes subtended by 10–12 **barbed bristles**

### Similar Species

- This is a very distinctive member of the sedge family in B.C., and is unlikely to be confused with other species



## Great Bulrush

*Schoenoplectus acutus*

### Wetland Site Associations

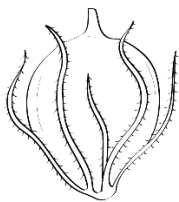
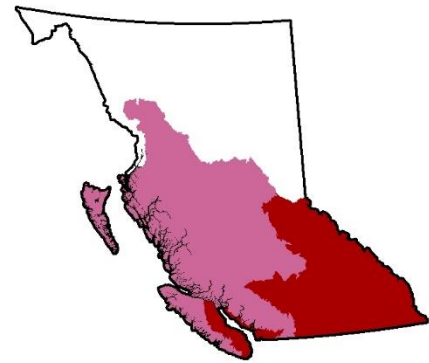
Wm06 Great Bulrush

### Key Characters

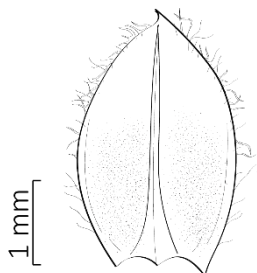
- Stems erect, **nearly leafless, dark green, rhizomatous**, to 3+ m tall, rounded, smooth, **firm** (i.e., not easily crushed between the fingers); stems **often emergent in standing water and forming extensive colonies**
- Inflorescence of **spreading to drooping branches**, appearing **laterally just below the stem tip**; spikelets solitary or in small, unstalked clusters at branch tips
- Spikelets **greyish-brown, egg-shaped**, to 15 mm long; scales egg-shaped, **surfaces short-hairy, fringed with short hairs**, tip often with a short awn
- Fruits **tiny, seed-like achenes** that are **shorter than the scales**, subtended by several **short, barbed, brownish bristles**

### Similar Species

- Soft-stemmed Bulrush has **reddish-brown spikelets, hairless surfaces on the scales, and soft-textured stems that are easily crushed between the fingers**



Achene



Scale



## Soft-stemmed Bulrush *Schoenoplectus tabernaemontani*

### Wetland Site Associations

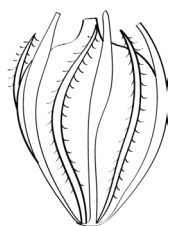
Wf53 Slender Sedge – White Beak-rush

### Key Characters

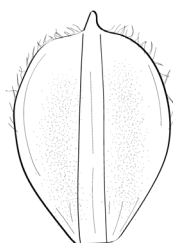
- Stems erect, **nearly leafless, dark green**, rhizomatous, to 2+ m tall, rounded, smooth, **soft in texture** (i.e., easily crushed between the fingers); stems **often emergent in standing water** and **forming extensive colonies**
- Inflorescence of **spreading to drooping branches**, appearing **laterally just below the stem tip**; spikelets in solitary or in small, unstalked clusters at branch tips
- Spikelets **reddish-brown**, egg-shaped, to 12 mm long; scales egg-shaped, **surfaces smooth, fringed with short hairs**, tip often with a short awn
- Fruits **tiny, seed-like achenes** that are **about as long as the scales**, subtended by several **short, barbed, brownish bristles**

### Similar Species

- Great Bulrush has **greyish-brown spikelets, short-hairy scales**, and **firm stems that are not easily crushed between the fingers**

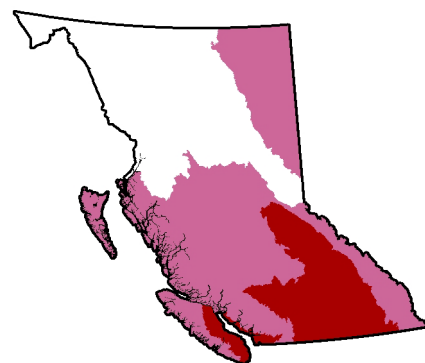


Achene



Scale

1 mm



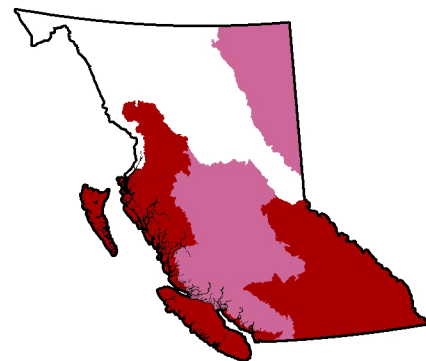
## Small-flowered Bulrush

### *Scirpus microcarpus*

#### Wetland Site Associations

Ws06 Sitka Willow – Sitka Sedge

Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage



#### Key Characters

- Stems erect, to 150 cm tall, rhizomatous, **often forming colonies**
- Leaves **firm, coarse, flat, broad** (to 20 mm wide)
- Inflorescence terminal, often barely exceeding the leaves, **widely branching**, composed of numerous **small, egg-shaped spikelets** that are **borne in small clusters at ends of the branches**
- Female scales **blackish with a greenish midrib**, short-pointed, enclosing **solitary seed-like achenes** that are **subtended by several short, hair-like bristles**

#### Similar Species

- Wool-grasses (*S. cyperinus*, *S. atrocinctus*) are **taller, more slender** species with **narrower leaves** (to 10 mm wide) and a **drooping inflorescence**; the mature **achenes are surrounded by numerous woolly hairs**, giving the fruiting spikelets a 'woolly' appearance





## Hudson Bay Clubrush

*Trichophorum alpinum*

### Wetland Site Associations

Wf10 Hudson Bay Clubrush – Red Hook-moss

### Key Characters

- Stems erect, **densely tufted, 3-angled, rough-textured**, leafless, to 40 cm tall
- Inflorescence a small terminal spike subtended by a **short, bristle-like stem extension** that does not exceed the spike; each flower with a brown, lanceolate to egg-shaped, **blunt** scale and **long (to 2.5 cm) white, curly, filamentous bristles**
- Fruits elliptic, seed-like, 3-angled, **purplish-brown achenes** subtended by the **long, white hairs that give the inflorescence a 'cottony' appearance**

### Similar Species

- Cotton-grasses (*Eriophorum* spp.) with single spikes (e.g., *E. chamissonis*, *E. scheuchzeri*) **lack a bristle-like stem extension** at the base of the spike, and have **larger, more compact heads of cottony bristles**
- Tufted Clubrush has **smooth, rounded stems** and the tiny spikes **lack long, cottony bristles**



## Tufted Clubrush

*Trichophorum cespitosum*

### Wetland Site Associations

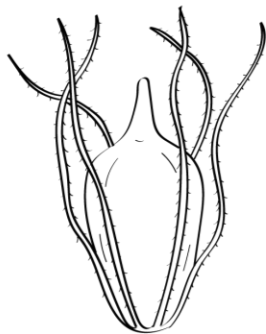
- Wb51 Shore Pine – Crowberry – Tough Peat-moss
- Wb52 Common Juniper – Tufted Clubrush – Rock Moss
- Wb53 Shore Pine – Yellow-cedar – Tufted Clubrush
- Wf11 Tufted Clubrush – Star Moss
- Wf50 Narrow-leaved Cotton-grass – Peat-moss

### Key Characters

- Stems erect, **densely tufted, rounded, smooth**, leafless, to 45 cm tall
- Inflorescence a small terminal spike subtended by a **short, bristle-like stem extension** that does not exceed the spike; each flower with a yellowish-brown, lanceolate to egg-shaped, **pointed scale**
- Fruits elliptic, seed-like, 3-angled, **brown achenes** subtended by **short, brown bristles that do not exceed the scale**

### Similar Species

- Hudson Bay Clubrush has **3-angled stem** and the flowers are subtended by **long, white, cottony hairs that much exceed the scales**



Achene

# 8. Ferns and Allies



## Lady Fern

### *Athyrium filix-femina*

#### Wetland Site Associations

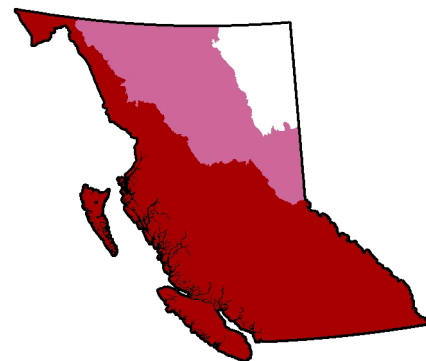
- Ws01 Mountain Alder – Skunk Cabbage – Lady Fern
- Ws09 Black Spruce – Skunk Cabbage – Peat-moss
- Ws10 Western Redcedar – Spruce – Skunk Cabbage
- Ws11 Spruce – Subalpine Fir – Skunk Cabbage
- Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage
- Ws52 Red Alder – Skunk Cabbage
- Ws53 Western Redcedar – Sword Fern – Skunk Cabbage
- Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage
- Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage
- FI01 Mountain Alder – Common Horsetail
- FI02 Mountain Alder – Red-osier Dogwood – Lady Fern
- FI04 Sitka Willow – Red-osier Dogwood - Horsetail
- Fm03 Cottonwood – Subalpine Fir – Devil’s-club
- Fm50 Cottonwood – Red Alder - Salmonberry

#### Key Characters

- Leaves **large** (to 120+ cm long), **deciduous**, usually clustered into **vase-shaped clumps**
- Leaves **twice-compound**, **broadly lanceolate** in outline, **pinnae becoming gradually shorter towards the base of the leaf**; pinnae lanceolate in outline, divided into oblong, round-toothed divisions
- Sori on underside of leaf **kidney-shaped**, partially covered by a **small crescent-shaped flap**

#### Similar Species

- Spreading Wood Fern (*Dryopteris expansa*) has smaller (to 70 cm long), **semi-evergreen** leaves that are **widest towards the leaf base** due to **enlarged basal pinnae**; the sori are **rounded** and **covered by a heart-shaped flap**



# Ferns & Fern Allies: Horsetails

## Common Horsetail

### *Equisetum arvense*

#### Wetland Site Associations

- Ws01 Mountain Alder – Skunk Cabbage – Lady Fern
- Ws03 Bebb's Willow – Bluejoint
- Ws06 Sitka Willow – Sitka Sedge
- Ws07 Spruce – Common Horsetail – Leafy Moss
- Ws08 Subalpine Fir – Sitka Valerian – Common Horsetail
- Ws09 Black Spruce – Skunk Cabbage – Peat-moss
- Ws10 Western Redcedar – Spruce – Skunk Cabbage
- Ws11 Spruce – Subalpine Fir – Skunk Cabbage
- Ws51 Sitka Willow – Pacific Willow – Skunk Cabbage
- Wb01 Black Spruce – Creeping Snowberry – Peat-moss
- Wb03 Black Spruce – Lingonberry – Peat-moss
- Wb05 Black Spruce – Water Sedge – Peat-moss
- Wb07 Lodgepole Pine – Water Sedge – Peat-moss
- Wb08 Black Spruce – Soft-leaved Sedge – Peat-moss
- Wb09 Black Spruce – Common Horsetail – Peat-moss
- FI01 Mountain Alder – Common Horsetail
- FI02 Mountain Alder – Red-osier Dogwood – Lady Fern
- FI03 Pacific Willow – Red-osier Dogwood – Horsetail
- FI04 Sitka Willow – Red-osier Dogwood - Horsetail
- FI50 Sitka Willow – False Lily-of-the-valley
- FI51 Red Alder – Salmonberry - Horsetail
- Fm02 Cottonwood – Spruce – Red-osier Dogwood
- Fm03 Cottonwood – Subalpine Fir – Devil's-club

#### Key Characters

- Produces **separate fertile and sterile stems**; stems **jointed**
- Fertile stems **appear before sterile stems and soon wither**, **weak-stemmed**, solitary, erect, **pinkish-brown with several dark brown, toothed sheaths**, terminating in a pale, **oblong**, cone-like strobilus with spores
- Sterile stems green, creeping to erect, **10- to 12-ridged**, with **whorls of slender, jointed branches**; first internode of branches **longer than the adjacent stem sheath**; stem sheaths with **10–12 blackish teeth**

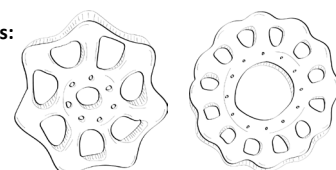
#### Similar Species

- Marsh Horsetail (*E. palustre*) is often larger and **more sparsely branched**, and does not have separate fertile and sterile stems; the stem has **fewer (5–10) ridges** and a **smaller central cavity**; stem sheaths with **white-margined teeth**
- Meadow Horsetail (*E. pratense*) has **finer branches** with the **first internode being longer than the adjacent stem sheath**; sheath teeth with **whitish margins**



Stem x-sections:

L: *E. palustre*  
R: *E. arvense*



## Swamp Horsetail

### *Equisetum fluviatile*

#### Wetland Site Associations

- Wm02 Swamp Horsetail – Beaked Sedge
- Wf05 Slender Sedge – Common Hook-moss
- Wf06 Slender Sedge – Buckbean
- Wf07 Scrub Birch – Buckbean – Shore Sedge
- Wf08 Shore Sedge – Buckbean – Hook-moss

#### Key Characters

- **Does not produce separate fertile and sterile stems; stems jointed**
- Stems erect, **hollow** with a large central cavity, to 150 cm tall, with whorls of fine branches (often sporadic) at the nodes or **sometimes unbranched, shallowly 10- to 30-ridged**, green-sheathed at the nodes; sheath teeth 10–30, slender, **black, persistent**
- Cone-like strobili produced at stem tip, oblong, **rounded at the tip, deciduous**

#### Similar Species

- Scouring-rush **consistently lacks branching** and has **coarse, evergreen stems with grey-and-black-banded stem sheaths**; the strobilus is firm, persistent, and **sharply pointed at the tip**
- Marsh Horsetail (*E. palustre*) has a more slender, **deeply 5- to 10-ridged stem with a much smaller central cavity**; stem sheaths with **5–10 lanceolate, white-margined teeth**



## Scouring-rush

### *Equisetum hyemale*

#### Wetland Site Associations

Fl06 Sandbar Willow

Fm01 Cottonwood – Snowberry - Rose

#### Key Characters

- Stems erect, to 120 cm tall, **coarse, evergreen, dark green, unbranched** (usually), hollow with a large central cavity, **finely and shallowly ridged**, sheathed at the nodes
- Stem sheaths **greyish with black bands at top and/or bottom**, apex with 15–50 small **black teeth that are quickly shed**
- Cone-like strobilus terminal at top of stem, **firm**, brownish to blackish, **sharp-pointed at the apex**

#### Similar Species

- Northern Scouring-rush (*E. variegatum*) is a **smaller, finer species with fewer (3–12) stem ridges**; sheath teeth **3–12, persistent**; stems less erect, to 55 cm tall
- Smooth Scouring-rush (*E. laevigatum*) is largely an **upland species of dry habitats**; it has **smoother, deciduous stems**; the apex of the strobili are **rounded**



## Giant Horsetail

*Equisetum telmateia*

### Wetland Site Associations

Ws52 Red Alder – Skunk Cabbage

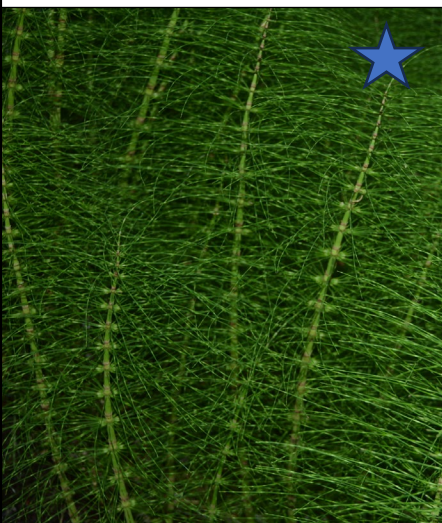
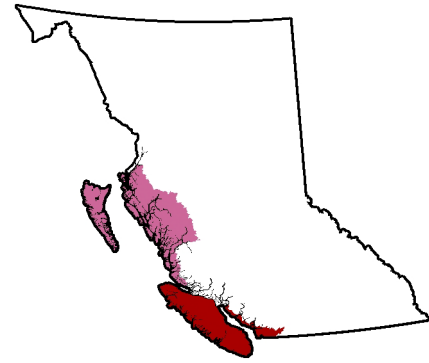
Ws53 Western Redcedar – Sword Fern – Skunk Cabbage

### Key Characters

- Produces **separate fertile and sterile stems**; stems **jointed**
- Fertile stems **appear before sterile stems and soon wither**; **robust**, solitary or clustered, erect, **greenish-brown with numerous coppery-brown, toothed sheaths**, terminating in a pale, **elongate, cone-like strobilus** with spores
- Sterile stems green, erect, **shallowly 15- to 30-ridged**, with **regular whorls of slender, jointed branches**; stem sheaths pale greenish with **15–30 brownish teeth**

### Similar Species

- Common Horsetail is a **smaller, more slender** species that has **smaller, weak-stemmed, pinkish-brown fertile stems with oblong strobili**; the sterile stems are **10- to 12-ridged**, and have **fewer (10–12) teeth at the sheath apex**





## Oak Ferns

### *Gymnocarpium dryopteris/disjunctum*

#### Wetland Site Associations

Ws10 Western Redcedar – Spruce – Skunk Cabbage Ws11  
Spruce – Subalpine Fir – Skunk Cabbage

#### Key Characters

- Leaves **small** (to 24 cm long), **long-stalked**, **deciduous**, **thin-textured**, often forming **carpets of individual leaves**
- Leaves **2x- to 3x-compound**, **broadly triangular** in outline, basal pinnae **much enlarged and triangular**
- Sori on underside of leaf small, **rounded**, **not covered by a flap**

#### Similar Species

- Oak ferns as a group are distinctive in British Columbia; the two component species of this complex (*G. disjunctum*, *G. dryopteris*) are extremely similar and occupy similar habitats where they occur.



## Sword Fern

*Polystichum munitum*

### Wetland Site Associations

Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage

Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage



### Key Characters

- Leaves **large** (to 150 cm long), **evergreen**, **leathery**, clumped and spreading from a central point
- Leaves **once-compound**, **lanceolate** in outline, **pinnae not gradually shorter towards the leaf base**, leaf stalk and midrib **densely papery-scaly**; pinnae lanceolate, **fine-toothed**, sharp-pointed, with a **triangular lobe at the base**, **very short-stalked**
- Sori discrete, **rounded**, **rusty-brown**

### Similar Species

- Deer Fern has **separate fertile and sterile blades**; the pinnae are **unstaked** and continuous with the midrib, and the leaf stalks are **not papery-scaly**



## Ostrich Fern

### *Matteuccia struthiopteris*

#### Wetland Site Associations

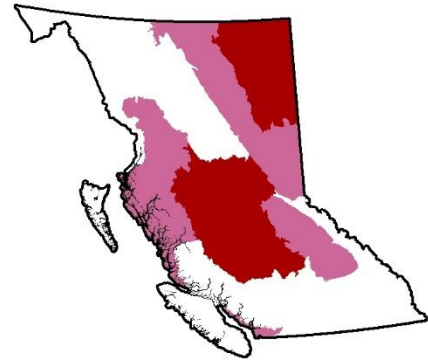
FI02 Mountain Alder – Red-osier Dogwood – Lady Fern

#### Key Characters

- **Leaves of two kinds**, with sterile leaves clustered into **vase-shaped clumps with the fertile leaves in the centre**
- Fertile leaves densely clumped, erect, to 60 cm tall, **brownish or blackish, hardened, persisting through winter**
- Sterile leaves erect, **large (to 175 cm), deciduous, 1-compound**, oblanceolate in outline, **broadest above the midpoint** and with a **long-tapering base**; pinnae **linear** with deeply round-lobed margins
- Sori produced in 1 row on underside of **strongly recurved margins** of fertile pinnae

#### Similar Species

- Lady Fern **does not have separate hardened, persistent fertile leaves**; the leaves are **twice-compound** and are **broadest around the midpoint**



## Deer Fern

### *Struthiopteris spicant*

(*Blechnum spicant*)

#### Wetland Site Associations

Ws54 Western Redcedar – Western Hemlock – Skunk Cabbage

Ws55 Yellow-cedar – Mountain Hemlock – Skunk Cabbage



#### Key Characters

- **Leaves of two kinds**, with sterile leaves surrounding the fertile leaves
- Fertile leaves densely clumped, **erect**, to 50 cm tall, **deeply pinnately cleft and appearing once-compound, firm, pinnae linear** and with **strongly inrolled margins**
- Sterile leaves spreading, **evergreen, leathery**, to 70 cm long, **lanceolate in outline** and with a **long-tapering base**, dark green, **deeply pinnately cleft and appearing once-compound**, pinnae linear-lanceolate and **continuous with midrib**
- Sori **continuous in a line on underside of fertile leaf pinnae**

#### Similar Species

- Sword Fern has larger leaves (to 150 cm long) and **lacks separate fertile leaves** and has larger leaves; **the leaves are truly pinnate**, with **the individual pinnae having very short stalks**, and produce **discrete circular, rusty-brown sori** on the underside



<i>Abies amabilis</i>	John D Reynolds
<i>Abies lasiocarpa</i>	Syd Cannings, Jason Headley, Birch Matkowski
<i>Acer glabrum</i>	John D Reynolds, Larry Halverson, Jason Straka, Brian Starzomski, Rebekah Ingram
<i>Acer macrophyllum</i>	Lena Dietz Chiasson, Jason Headley, Thomas Barbin, Jennifer Grant, Molly Dube, Rebekah Ingram
<i>Actaea rubra</i>	Wade Tokarek, Denean Lederer, Isaac Zee, Katerina Sofos, Rebekah Ingram
<i>Alnus incana</i>	Birch Matkowski, Rebekah Ingram
<i>Alnus rubra</i>	T. Abe Lloyd, Jack Farley, Karine Scott, Molly Dube, Rebekah Ingram
<i>Andromeda polifolia</i>	Kristen Miskelly, Adrian de Groot, Nicola Rammell
<i>Athyrium filix-femina</i>	Jason Headley, Rebekah Ingram
<i>Betula glandulosa</i>	Lena Dietz Chiasson, Andy Fyon, Kristen Miskelly
<i>Betula occidentalis</i>	John D Reynolds, Ian R. Walker
<i>Calamagrostis canadensis</i>	John D Reynolds, Lena Dietz Chiasson, Boris Bolshakov
<i>Callitropsis nootkatensis</i>	Lena Dietz Chiasson, Hilary K. Blair, Ellyne Geurts, Gabe Schp
<i>Caltha leptosepala</i>	Ian Cruickshank, Adrian de Groot, Julia Carr
<i>Carex anthoxanthea</i>	T. Abe Lloyd, Peter Zika, Matt Goff
<i>Carex aquatilis</i>	Kristen Miskelly
<i>Carex atherodes</i>	Philippe Blais, Samuel Brinker, Lysandra Pyle
<i>Carex chordorrhiza</i>	Anna Efimova, Marie-Ève Garon-Labrecque, Igor Pospelov
<i>Carex disperma</i>	Tyson Ehlers, Steven Daniel, Rebekah Ingram
<i>Carex exsiccata</i>	T. Abe Lloyd, Barbara L. Wilson
<i>Carex lasiocarpa</i>	Anna Efimova, Vladimir Bryukhov, Svetlana Nesterova, Kendall McLaughlin
<i>Carex limosa</i>	Tyson Ehlers, T. Abe Lloyd, Pat Deacon
<i>Carex livida</i>	Ian Cruickshank, Andrew Minielly, Steven Daniel, Andrew Minielly
<i>Carex magellanica</i>	Marie-Ève Garon-Labrecque, Stuart Tingley, Rebekah Ingram
<i>Carex pauciflora</i>	T. Abe Lloyd, Michael Rudy, Jeremy Gatten
<i>Carex pluriflora</i>	T. Abe Lloyd, Aimee Pelletier, Brian Starzomski
<i>Carex sitchensis</i>	Carita Bergman
<i>Carex tenuiflora</i>	Tyson Ehlers, Peter Zika, Marie-Ève Garon-Labrecque, Mihail Knjasev, Steven Daniel
<i>Carex utriculata</i>	Kendall McLaughlin, Molly Dube, Rebekah Ingram
<i>Cicuta douglasii</i>	Birch Matkowski, Kendall McLaughlin
<i>Circaea alpina</i>	Lena Dietz Chiasson, Kate McKeown, Jason Headley, Alison Northup
<i>Comarum palustre</i>	Alana Higginson, Kendal McLaughlin
<i>Coptis trifolia</i>	John D Reynolds, Ian Cruickshank
<i>Cornus sericea</i>	Birch Matkowski, Kendall McLaughlin
<i>Drosera anglica</i>	Rebekah Ingram
<i>Drosera rotundifolia</i>	Allana Higginson
<i>Dulichium arundinaceum</i>	T. Abe Lloyd, Ian Cruickshank, Lynda Stevens
<i>Eleocharis palustris</i>	John D Reynolds, Andrew Simon, Jan Smith

<i>Eleocharis quinqueflora</i>	Anna Efimova, Svetlana Nesterova, Aleksandr Ebel
<i>Elliottia pyroliflora</i>	John D Reynolds, Ivy Strother
<i>Elymus glaucus</i>	Ben Keen, Andrew Simon, Alexander Baransky
<i>Empetrum nigrum</i>	Molly Dube, Rebekah Ingram
<i>Equisetum arvense</i>	Kendall McLaughlin, Molly Dube
<i>Equisetum fluviatile</i>	John D Reynolds, Ian Cruickshank, Forest Lab, Jason Headley, Rebekah Ingram
<i>Equisetum hyamele</i>	Kendall McLaughlin, Rebekah Ingram
<i>Equisetum telmateia</i>	Krystal Chn, Braden J. Judson, John D Reynolds, Kate McKeown
<i>Eriophorum angustifolium</i>	Steve Ansell
<i>Eriophorum chamissonis</i>	Kyla Rushton, Rebekah Ingram
<i>Galium trifidum</i>	John D Reynolds, Lena Dietz Chiasson, Lynda Stevens, Linda Nuttall, Jason Headley, Kendall McLaughlin
<i>Gaultheria hispidula</i>	Kate McKeown, Jason Headley
<i>Gaultheria shallon</i>	Jamie Fenneman, Kendall McLaughlin, Ryan Durand
<i>Gymnocarpium</i>	John D Reynolds, Jason Headley, Alison Northup, Kendal McLaughlin
<i>Heracleum maximum</i>	John D Reynolds, Jason Young
<i>Hordeum jubatum</i>	Birch Matkowski
<i>Hypericum anagalloides</i>	Jason Headley
<i>Juncus balticus</i>	John D Reynolds, Alison Northup, Randal Mindell Kendall McLaughlin
<i>Juniperus communis</i>	John D Reynolds, Kristen Miskelly, Jason Headley
<i>Kalmia microphylla</i>	Ian Cruickshank, Alana Higginson, Rebekah Ingram
<i>Larix laricina</i>	Birch Matkowski, Rebekah Ingram
<i>Leptarrhena pyrolifolia</i>	Ian Cruickshank, Emily Cameron, Jason Headley
<i>Lonicera involucrata</i>	Kendal McLaughlin, Rebekah Ingram
<i>Lysichiton americanus</i>	Cassie Friesen, Rebekah Ingram
<i>Maianthemum dilatatum</i>	Ian Cruickshank, Terry Maniwa, Natasha Beaugard, Birch Matkowski
<i>Matteuccia struthiopteris</i>	Ian Cruickshank, Andy Fyon, John D Reynolds, Rebekah Ingram
<i>Menyanthes trifoliata</i>	Alana Higginsons, Birch Matkowski, Rebekah Ingram
<i>Myrica gale</i>	Kate McKeown
<i>Nuphar polysepala</i>	Birch Matkowski, Kendall McLaughlin
<i>Oenanthe sarmentosa</i>	Markus Kellerhals, Celeste Kieran
<i>Oplopanax horridus</i>	Tyson Ehlers, Joan Septembre, Jason Headley
<i>Osmorhiza berteroi</i>	John D Reynolds, Ben Keen, David Clements, Jason Headley, Kendall McLaughlin
<i>Pericaria amphibia</i>	Birch Matkowski, Rebekah Ingram
<i>Picea mariana</i>	Birch Matkowski, Rebekah Ingram
<i>Picea sitchensis</i>	David Broadband, Jason Headley
<i>Picea x albertiana</i>	Peter Crawford
<i>Pinus contorta var. contorta</i>	Christopher Tracey, Lena Dietz Chiasson, Erin Springinotic, Brian Starzomski
<i>Pinus contorta var. latifolia</i>	Jason Headley, Dezene Huber
<i>Platanthera dilatata</i>	Lena Dietz Chiasson, Amelia Deneka, Jason Headley, Rebekah Ingram
<i>Poa pratensis</i>	Dina Nesterkova, Steve J. McWilliam

<i>Podagrostis aequivalvis</i>	Susan Biek
<i>Polystichum munitum</i>	John Martin, Brian Starzomski, Cassie Friesen, Kendal McLaughlin
<i>Populus trichocarpa</i>	Jamie Fenneman Birch Matkowski, Ryan Durand
<i>Potamogeton richardsonii</i>	Steven Kurniawidjaja, Adrian de Groot , Samuel Brinker
<i>Potentilla anserina</i>	Kathy Stewart, Kendall McLaughlin
<i>Pyrola asarifolia</i>	Pete Woodall, Jason Young, Sigal Blay, Jason Headley, Rebekah Ingram
<i>Rhododendron groenlandicum</i>	Frankie Clark, Alana Higginson, Birch Matkowski, Rebekah Ingram
<i>Rhynchospora alba</i>	Kelly Fretwell, Natalia Gamova
<i>Ribes bracteosum</i>	Barbara Havrot
<i>Rosa acicularis</i>	Birch Matkowski
<i>Rosa nutkana</i>	Alyssa Zandvliet, Maleen Mund, Brian Starzomski
<i>Rosa woodsii</i>	John D Reynolds, Kendall McLaughlin
<i>Rubus chamaemorus</i>	Molly Dube, Rebekah Ingram
<i>Rubus parviflorus</i>	Natasha Beauregard, Kendall McLaughlin
<i>Rubus spectabilis</i>	Ian Cruickshank, Justin Flint, Allie Olson, Kendall McLaughlin
<i>Salix barclayi</i>	Jamie Fenneman, Ryan Durand
<i>Salix Bebbiana</i>	Kendall McLaughlin
<i>Salix drummondiana</i>	Jamie Fenneman, Ryan Durand
<i>Salix exigua</i>	Lena Dietz Chiasson, Dick Cannings, Jason Headley, Rebekah Ingram
<i>Salix lasiandra</i>	John D Reynolds, Josh Thompson
<i>Salix maccalliana</i>	Jamie Fenneman, Ryan Durand
<i>Salix pedicellaris</i>	Jamie Fenneman, Ryan Durand, Rebekah Ingram
<i>Salix sitchensis</i>	John D Reynolds, John Martin, Katerina Sofos, Kendall McLaughlin
<i>Sambucus racemose</i>	Celeste Kieran, Alison Young, Rebekah Ingram
<i>Sanguisorba stipulata</i>	Lena Dietz Chiasson, Andy Fyon, Ian Gazeley
<i>Sanguisorba officinalis</i>	John D Reynolds
<i>Scheuchzeria palustris</i>	Rebekah Ingram
<i>Schoenoplectus acutus</i>	David F. Fraser, Ellen Pond, Robert Wernerehl
<i>Schoenoplectus tabernaemontani</i>	T. Abe Lloyd, Daniel Stewart, Judith Holm, Kendall McLaughlin
<i>Scirpus microcarpus</i>	John D Reynolds, Kendal McLaughlin
<i>Senecio triangularis</i>	Jason Headley
<i>Sium suave</i>	Kathy Stewart, John D Reynolds
<i>Spiraea douglasii</i>	Kendal McLaughlin, Rebekah Ingram
<i>Stachys cooleyae</i>	Maleen Mund, Kendall McLaughlin
<i>Streptopus amplexifolius</i>	Syd Cannings, John D Reynolds, Celeste Kieran, Jason Headley
<i>Streptopus lanceolatus</i>	Ben Rose, Jason Headley
<i>Struthiopteris spicant</i>	Kyla Rushton
<i>Symphoricarpos albus</i>	Julia Housden Proulx, John D Reynolds, Celeste Kieran, Jason Headley, Rebekah Ingram
<i>Symphotrichum subspicatum</i>	John D Reynolds, Kristen Miskelly, Liam Steele, Gerry Bates
<i>Thuja plicata</i>	Jamie Fenneman, Ryan Durand

<i>Tiarella trifoliata</i>	Jason Headley, Liam Ragan
<i>Triantha glutinosa</i>	John D Reynolds, Chloe Van Loon, Trevor Van Loon, David Severson
<i>Trichophorum alpinum</i>	Hanna Dorval, Emily Cameron
<i>Trichophorum cespitosum</i>	Ian Cruickshank, John D Reynolds, Eva Ullstrom, Kendall McLaughlin
<i>Triglochin maritima</i>	Ian Cruickshank, Tanis Gower, Jason Headley
<i>Tsuga heterophylla</i>	Ben Keen, John D Reynolds, Shirley Coulson, Birch Matkowski, Rebekah Ingram
<i>Tsuga mertensiana</i>	John D Reynolds, T. Abe Lloyd
<i>Typha latifolia</i>	Kendall McLaughlin
<i>Urtica dioica</i>	John Martin, Grace Gauthier, Ian R. Walker, Kendall McLaughlin, Molly Dube
<i>Utricularia intermedia</i>	John D Reynolds, Tyson Ehlers, Bryan Kelly-McArthur
<i>Utricularia vulgaris</i>	Randal Mindell, Ian Cruickshank, Jason Headley
<i>Vaccinium alaskaense</i>	Derek Killby, Sigal Blay
<i>Vaccinium ovalifolium</i>	Ian Cruickshank, Jason Headley
<i>Evergreen Huckleberry</i>	Kyla Rushton
<i>Vaccinium oxycoccos</i>	Cassie Friesen, Kendall McLaughlin, Rebekah Ingram
<i>Vaccinium uliginosum</i>	Birch Matkowski, Rebekah Ingram
<i>Vaccinium vitis-idaea</i>	Birch Matkowski, Rebekah Ingram
<i>Vahlodea atropurpurea</i>	T. Abe Lloyd, Kristen Miskelly
<i>Valeriana sitchensis</i>	John D Reynolds, Terry Maniwa, Jason Headley
<i>Veratrum viride</i>	John D Reynolds, Ian Cruickshank, Celeste Kieran, Jason Headley
<i>Viburnum edule</i>	T. Abe Lloyd, Michael Boudreau, Lena Dietz Chiasson
<i>Viola palustris</i>	Eva Ullstrom, Katerina Sofos, Kendall McLaughlin