



# WETLAND PLANTS OF BRITISH COLUMBIA

A Field Guide to Common Species

### VERSION 3

Authored by the B.C. Wildlife Federation (BCWF)

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Thank you to everyone who helped bring this guide to life.

Your support makes our ongoing conservation and education efforts possible. We are especially grateful to the funders who helped make this resource publicly accessible.









We would like to extend a special thank you to Stephen Partington for his generous donation, which helped make Version 3 possible.

### Your Guide to B.C.'s Wetland Flora

The Wetland Plants of British Columbia guidebook was created by the B.C. Wildlife Federation, with technical content, field expertise, and project coordination provided by members of BCWF's Conservation Stewardship Team.

Thank you to everyone who contributed photographs, data, and expertise to this guide. For a full list of photo contributors, visit page 168. Photos are also credited by watermark throughout this resource. Special thank you to Don A. Sutherland, whose photo was used as the cover of this book.

Version 1 (2021) of this guide—developed by Jamie Fenneman and Ryan Durand of Ecologic Consulting Ltd.—was created to support wetland classification alongside the *Land Management Handbook: Wetlands of British Columbia: A Guide to Identification*, commonly referred to as LMH52. Subsequent editions—Version 2 (2022) and this updated Version 3 (2025)—have been restructured for clarity and enhanced with new photo contributions from BCWF staff and members of the public. Version 3 of this resource is the first version to be available in print.

If you find this guide valuable, please consider making a donation to the B.C. Wildlife Federation. Your contribution helps cover the costs of producing resources like this, as well as vital conservation work across B.C.

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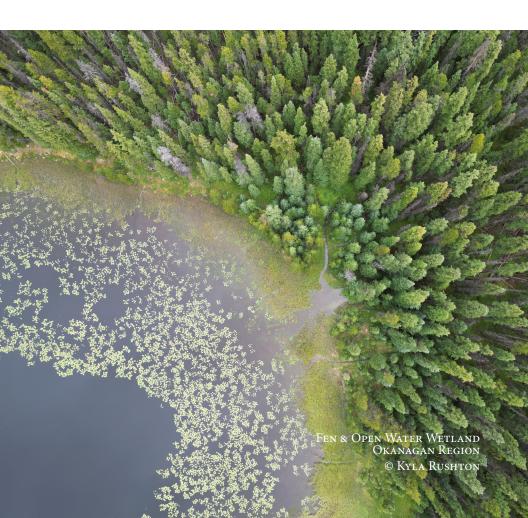
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### Introduction

Wetlands are essential ecosystems in British Columbia, rich in biodiversity and home to a wide variety of flora and fauna. This guide introduces common indicator species found in wetland habitats across the province and is designed to support users in confidently identifying wetland plants while exploring these vital ecosystems.

This guide is intended for both new and experienced naturalists, offering clear descriptions, identification tips, photographs, distribution maps, and notes on similar species.

Our hope is that this guidebook fosters a deeper understanding and appreciation of the province's wetland flora. Through this book, we intend to encourage a meaningful connection to these ecosystems and support efforts to understand and protect them for future generations.



### How To Use This Guide

This guide introduces many of the common indicator wetland species found in British Columbia, with a focus on those that are distinct and well-adapted to wetland habitats. Some of these species may also occur in transitional zones or upland areas. Plants are organized into four life form categories: woody plants (trees and shrubs), flowering plants (forbs), grasses and grass-like species (graminoids), and ferns and allies. Where applicable, further divisions are made within each section.

### Woody Wetland Plants: Trees and shrubs adapted to wet soils:

- Deciduous Trees: Broad-leaved trees that shed their leaves annually.
- Coniferous Trees: Needle-leaved, evergreen trees.
- Willows: Shrubs or small trees in the genus *Salix*, growing in a variety of wetland conditions.
- Shrubs: Larger woody plants that typically grow 15 cm to 10 m in height, often forming dense thickets.
- Dwarf Shrubs: Low-growing woody plants with stems that are generally less than 15 cm tall at maturity.

### Forbs: Flowering plants adapted to wet soils:

- Herbaceous Plants: Non-woody flowering plants that frequently occur in wetlands.
- Aquatic Plants: Wetland obligates that are either rooted in submerged soils or float freely on the water surface.

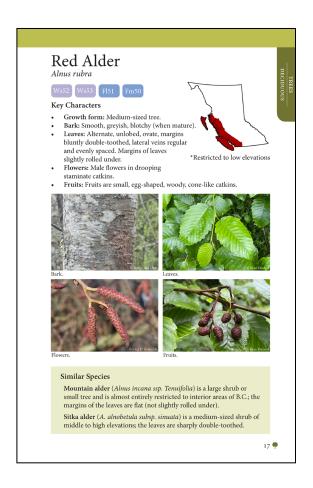
### Graminoids: Slender, narrow-leaved wetland plants:

- Sedges: Grass-like plants in the family Cyperaceae, often with triangular stems and adapted to saturated soils.
- Rushes: Members of the Juncaceae family, rushes are tough, cylindrical-stemmed plants found in wet soils.
- Grasses: True grasses in the Poaceae family, many of which are facultative or obligate wetland species.
- Cattails: Iconic wetland plants known for their cylindrical flower spikes and rhizomatous growth.

### Ferns and Allies: Spore-producing plants in moist habitats

### Each species account contains:

- Colour-coded headers indicating the species' growth form.
- English and Latin names, based on current provincial databases (if differing, the scientific name from Wetlands of B.C. is also included).
- Photographs showcasing key characteristics.
- A generalized distribution map of the species.
- A list of common wetland site associations.
- Key identification characteristics.
- Comparisons to similar species, with notable differences in range, habitat, or morphology.



This guidebook can be used on its own or as a companion to the *Land Management Handbook: Wetlands of British Columbia: A Guide to Identification* (LMH52).

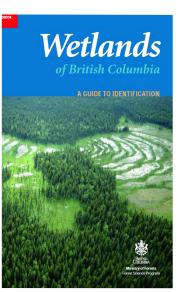
The LMH52 guide describes common plant communities found in wetlands, making it a useful resource for identifying additional plant species that may be growing nearby or for classifying the wetland itself.

When used together, these guides can support the identification of both individual plant species and the broader wetland ecosystems in which they are found.

For each species in this guide, we've included common site associations based on LMH52 classifications (e.g., Wm01, Wf01), offering insight into where each species is typically found. Keep in mind, however, that many species may also occur in site associations not listed here.

These site associations should be seen as a starting point rather than a comprehensive reference. To ensure accurate plant identification and wetland classification, we encourage users to consult multiple resources.

Many of the species featured in this guide are also used in ecosystem classification within the broader biogeoclimatic ecosystem classification (BEC) system. Other land management handbooks—such as LMH65, LMH68, LMH71, LMH75, and LMH76—may provide additional context and site associations for these species, particularly in upland or region-specific ecosystems.



### Where to access LMH52 online:

The full version of Wetlands of British Columbia: A Guide to Identification (LMH52) is available as a free downloadable PDF through the Government of British Columbia's website.



You can access it directly by scanning the QR code or at: <a href="https://www.for.gov.bc.ca/hfd/pubs/">https://www.for.gov.bc.ca/hfd/pubs/</a>



## Species Names

Many scientific names of plants have changed in British Columbia since 2004 when the LMH52 guide was created (Table 1-1).

TABLE 1-1. SPECIES NAME UPDATES SINCE 2004

Common Name	Current Scientific Name	Wetlands of BC Scientific Name
Alaska Aster	Symphyotrichum subspicatum	Aster subspicatus
Black Cottonwood	Populus trichocarpa	Populus balsamifera subsp. trichocarpa
Bog Cranberry	Vaccinium oxycoccos	Oxycoccus oxycoccos
Deer-cabbage	Nephrophyllidium crista- galli	Fauria crista-galli
Dwarf birch	Betula glandulosa	Betula nana
Interior spruce	Picea × albertiana	Picea X
Labrador tea	Rhododendron groenlandicum	Ledum groenlandicum
Pacific willow	Salix lasiandra	Salix lucida
Red elderberry	Sambucus racemosa var. arborescens	Sambucus racemosa
Red-osier dogwood	Cornus sericea	Cornus stolonifera
Sitka burnet	Sanguisorba stipulata	Sanguisorba canadensis
Sticky false asphodel	Triantha glutinosa and T. occidentalis	Triantha glutinosa
Water smartweed	Persicaria amphibia	Olygonum amphibium
Yellow pond-lily	Nuphar polysepala	Nuphar lutea subsp. polysepala
Yellow-cedar	Callitropsis nootkatensis	Chamaecyparis nootkatensis

The English names used in this guide are based on those listed in the BC Species & Ecosystems Explorer. However, many plants have multiple common names, which can vary by region, community, and language.

## DISTRIBUTION MAPS

The Ecoregions of B.C. form the basis for the generalized distribution maps provided for each species. For clarity, the ecoregions have been condensed into 14 bioregional zones (Figure 1-1), which serve as a visual reference for species distribution. Two of these zones—West Kootenays and East Kootenays—have been further divided into northern and southern regions, as species distributions in the Kootenays vary significantly between these areas. The maps indicate where a species is common, uncommon, or absent within each bioregional zone (Figure 1-2). Notable small populations occurring outside a species' typical range (e.g., yellow-cedar) are shown with a black dot. A species mapped as 'common' is generally widespread and may be dominant in wetlands within that region. Where it is mapped as "uncommon," the species is typically restricted to specific habitats or subregions. While it may be locally abundant, it is not generally dominant.

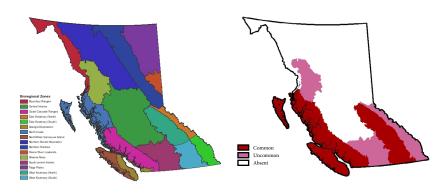


FIGURE 1-1. THE BIOREGIONAL ZONES OF B.C. FOR WETLAND PLANTS OF BRITISH COLUMBIA

FIGURE 1-2. EXAMPLE OF A GENERALIZED DISTRIBUTION MAP

Every effort has been made to ensure the accuracy of the information presented in this guide. However, plant identification and classification are complex fields and are subject to ongoing research and revision. Users are encouraged to consult multiple sources when identifying species and to verify any critical information before use. The authors and publishers assume no liability for errors, omissions, or interpretations of the content within this guide. This publication is intended for informational and educational purposes only and should not be used as a sole resource.





TREES AND SHRUBS ADAPTED TO WET SOILS

## Big Leaf Maple

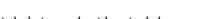
Acer macrophyllum

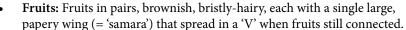




### **Key Characters**

- Growth form: Large tree.
- Bark: Grey-brown, narrowly furrowed when mature.
- Leaves: Large, opposite, palmate with 5 lobes deeply divided.
- Flowers: Appear in early spring, yellow, in long drooping inflorescences.









Leaves.



Fruits.



\*Restricted to low elevations

### Similar Species

Douglas maple (Acer glabrum var. douglasii), 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 (Acer circinatum), 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.

## Red Alder

### Alnus rubra







### **Key Characters**

- Growth form: 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.



\*Restricted to low elevations

- Flowers: Male flowers in drooping staminate catkins.
- Fruits: Fruits are small, egg-shaped, woody, cone-like catkins.



Bark.



Leaves.







Fruits.

### **Similar Species**

Mountain alder (Alnus incana ssp. Tenuifolia) is a large shrub or small tree and is almost entirely restricted to interior areas of B.C.; 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.

## **Black Cottonwood**

Populus trichocarpa (Populus balsamifera ssp. trichocarpa)









### Zozz Chamactomo

### **Key Characters**

- Growth form: Medium-sized to large trees.
   Buds have a strong, sweet-scent and are covered in sticky gum in the spring.
- Bark: Young bark smooth; mature bark greyish-brown, thick, deeply furrowed.
- Leaves: Medium-sized to large, narrowly to broadly egg-shaped with a rounded or abruptly tapered base, tip long-pointed.
- Fruits: 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.











Fruits.

Fruits.

Buds.

### 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, and in its 2-valved capsules. These two species hybridize extensively in northern B.C.; both are associated with similar ecosystems in their respective ranges.

## Amabilis Fir

Abies amabilis





### **Key Characters**

- **Growth form:** Canopy broad and rounded when mature.
- Bark: Greyish-brown, smooth bark, with an abundance of resin blisters when young.
- Needles: 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.
- Cones: Upright, dark purplish-brown cones that occur high in the tree canopy and disintegrate at maturity.



Bark.



Branches.



Needles.



Con

### Similar Species

**Subalpine fir** (*Abies lasiocarpa*) has a narrowly cylindrical canopy and upturned, often blue-tinged needles that are not arranged in two series.

## Subalpine Fir

Abies lasiocarpa











### **Key Characters**

- Growth form: Canopy narrowly cylindrical when mature.
- Bark: Greyish-brown, smooth bark, with an abundance of resin blisters when young.
- Needles: 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.
- Cones: Upright, purplish-black cones that occur high in the tree canopy and disintegrate at maturity.



Cones.



Needles.



Upward cones in canopy.

### Similar Species

Amabilis fir (*Abies amabilis*) 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** (*Picea spp.*) 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.

## Yellow Cedar

Callitropsis nootkatensis









### **Key Characters**

- Growth form: Flattened, drooping branchlets.
- Bark: Greyish bark that occurs in long strips.
- Leaves: Scale-like leaves.
- Cones: Small, spherical cones with the umbrella-shaped scales all attached to a central point.



\*Primarily in upper elevations







Branches.







Scale-like leaves.

### **Similar Species**

Western redcedar (*Thuja plicata*) 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





### **Key Characters**

- Growth Form: Narrow, open conical shape.
- Needles: Needles deciduous, turning yellow in fall, borne in lateral bunches on short woody shoots.
- Cones: Small, egg-shaped cones with rounded scales; borne upright along the branch.







Bark.

Needles in summer.



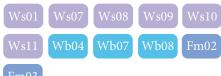


**Similar Species** 

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

## Hybrid White Spruce

Picea x albertiana





### **Key Characters**

- **Growth form:** Twigs have fine short hairs.
- Bark: Greyish-brown, scaly bark.
- Needles: Stiff, sharp needles. Woody pegs at the base of the needles that remain after the needles are shed.
- Cones: Oblong cones; scales with somewhat pointed tips.



Cones.



Needles.



Barl

### **Similar Species**

Black spruce (*Picea mariana*) 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 Hybrid White Spruce in northern and northeastern BC; it has shorter needles (usually < 1.5 cm), rounded cone scales, and hairless twigs.

## Black Spruce

Picea mariana

Ws09

Wb01

Wb02 Wb0

Wb05

Wb06

508

Vb09

Wb11

### **Key Characters**

- Growth form: Crown of tree often forms dense 'topknot'. Twigs are densely woolyhairy.
- Bark: Greyish-brown, scaly bark.
- Needles: Short, soft, blunt-pointed needles. Woody pegs at the base of the needles that remain after the needles are shed.
- Cones: Egg-shaped cones; scales with rounded tips.



Needles.



Cones.



Tree with dense 'topknot'.

### Similar Species

Hybrid white spruce (*Picea x albertiana*) 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







### **Key Characters**

- **Growth form:** Often very large trees with hairless twigs.
- Bark: Greyish-brown, scaly bark.
- Needles: Long, stiff, very sharp, bluishgreen needles. Woody pegs at the base of the needles that remain after the needles are shed.
- Cones: Oblong cones; scales with somewhat pointed tips and jagged margins.





Bark.





Growth form.

### Similar Species

**Hybrid white spruce** (*Picea x albertiana*) is a species of interior B.C. (some overlap and hybridization with Sitka Spruce in west-central B.C.) with short-hairy twigs, shorter green needles (usually lacking blue tones), and smaller cones.

## Shore Pine

Pinus contorta var. contorta







### **Key Characters**

- Growth form: Irregular, sprawling, and broadly rounded.
- 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.







Cones.





Needles.

Growth form.

### **Similar Species**

**Lodgepole pine** (*Pinus contorta var. latifolia*) 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 scalier, less deeply furrowed bark.

# Lodgepole Pine Pinus contorta var. latifolia





### **Key Characters**

- 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.





Cone.





### Similar Species

Shore pine (Pinus contorta var. contorta) 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.

## Western Red Cedar

Thuja plicata













### **Key Characters**

- Growth form: Pyramidal or conical shape when young, developing to be more columnar with a buttressed base and arching branches that often droop downwards before tips arching upwards.

\*Primarily in lower and middle elevations

- Bark: Greyish bark that occurs in long strips when mature.
- Needles: Flattened, spreading branchlets with scale-like leaves.





Needles.





### **Similar Species**

Yellow cedar (Callitropsis nootkatensis) 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



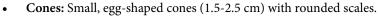


### **Key Characters**

- Growth form: Top of tree nodding, branches form flat sprays.
- Bark: Greyish-brown, forming narrow plates.
- Needles: Short, variable in length, with woody pegs at the base that remain on the twig after the needles are shed.



\*Primarily in lower and middle elevations







Needles.





Needles on branch.

### Similar Species

Mountain hemlock (Tsuga mertensiana) 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



### **Key Characters**

- **Growth form:** Top of tree nodding, branches forming bushy sprays.
- **Bark:** Greyish-brown, forming narrow plates.
- Needles: Medium-length, uniform in length, with woody pegs at the base that remain on the twig after the needles are shed.



\*Primarily in upper elevations

• Cones: Medium-sized, oblong cones (3-6 cm) with rounded scales.



Needles.



Cones.



Growth form.

### **Similar Species**

Western hemlock (*Tsuga heterophylla*) 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.

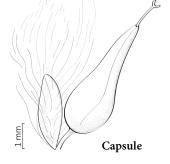
# Barclay's Willow Salix barclayi



### **Key Characters**

- **Growth form:** Medium-sized shrub (1-3 m). Twigs yellowish-green, short-hairy.
- Leaves: Elliptic, light green above, glaucous and nearly hairless below, margins finely toothed throughout.
- Flowers: Pistillate catkins stout, on leafy stalks 4-25 mm long, appearing with the leaves.
- Fruits: Capsules hairless, greenish, long and slender, with a long pointed beak.











### Similar Species

Serviceberry willow (Salix 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).

## Bebb's Willow

Salix bebbiana



Fl07

### **Key Characters**

- **Growth form:** Often a large shrub, (0.5-10 m). Twigs pinkish to redish-brown.
- Leaves: Elliptic, soft-green above, glaucous below, often red-tinged when young; upper surface distinctly wrinkled.
- Flowers: Pistillate catkins elongate, appearing with the leaves, terminating in short leafy twigs.
- Fruits: Capsules long-stalked (stalks ca. as long as capsules), long-beaked, short-hairy.



Capsules.



Catkins.



Capsule



Capsules gone to seed.



Leaves.

### **Similar Species**

**Scouler's willow** (*Salix scouleriana*) usually has oblanceolate leaves and unstalked capsules; the pistillate catkins are unstalked and appear before the leaves in spring

**Pussy willow** (*Salix discolor*) also has unstalked 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







### **Key Characters**

Growth form: Medium to large shrub (1-5 m).
 Twigs are brittle and 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.

• **Flowers:** Pistillate catkins elongate, densely flowered, appearing before the leaves in spring, unstalked.

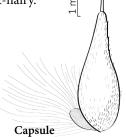
Fruits: Capsules unstalked, beaked, short-hairy.



Leaves.



Catkins.





Capsules.

### Similar Species

**Sitka willow** (*Salix sitchensis*) usually has oblanceolate leaves with shinier, silky undersides.

### Narrow Leaf Willow

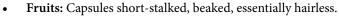
Salix exigua



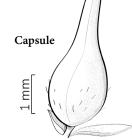
#### **Key Characters**

- Growth form: Medium to large shrub
   (0.5-6 m), of the southern interior of BC.
   Reproduces clonally, forming extensive stands
   of erect stems. Twigs are slender and whip-like,
   usually drooping.
- Leaves: Long, linear, densely whitish hairy on both surfaces; leaf margins entire to sharp-toothed.

• Flowers: Pistillate catkins slender, cylindrical, terminating long leafy twigs.







Leaves.







Capsules gone to seed.

#### Similar Species

**Interior willow** (*Salix interior*) is similar in form and ecology to Narrow Leaf Willow, but occurs in northern and central B.C.; its leaves are green and nearly hairless above, and always have toothed margins.

**Dusky willow** (*Salix melanopsis*) occurs in a similar range and habitat to Narrow Leaf Willow; it has broader leaves that are green and hairless above.

35

### Pacific Willow

Salix lasiandra





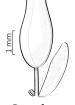
#### **Key Characters**

- Growth form: Large shrub to small tree (1-11 m). Twigs are yellow to yelow-ish green, brightest yellow in the winter.
- Leaves: 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.
- Flowers: Pistillate catkins appearing with the leaves in spring, on leafy stalks.

Fruits: Capsules long-beaked, yellow-green, hairless; maturing in early summer.







Capsule









Capsules.

#### Similar Species

**Autumn willow** (*Salix. serissima*) is restricted to the Peace region of northeastern B.C.; 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 B.C. are similar, but usually have tapering leaf bases and lack paired glands at the base of the leaf blade.

### MacCalla's Willow

Salix maccalliana



#### **Key Characters**

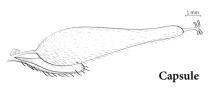
- Growth form: A highly distinctive medium to large shrub to small tree (1-5 m). Twigs are stout, hairless and usually reddish.
- ends, thick and leathery, dark green above and paler green below (not glaucous), sharply toothed along the margins.
- Flowers: Pistillate catkins short and stout, on leafy twigs, appearing with or after leaf emergence.
- Fruits: Capsules very large (7-11 mm), long-beaked, short-hairy.







Capsules gone to seed and reddish twigs.





Capsules.

# Bilberry Willow

Salix myrtillifolia

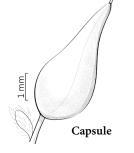


#### **Key Characters**

- Growth form: Low, often creeping shrub (usually < 60 cm). Twigs are slender and whip-like, usually drooping.
- Leaves: Usually broad, oblong to egg-shaped, fine-toothed along entire margin, hairless, green on both surfaces.
- Flowers: Pistillate catkins elongate, loosely flowered, borne at the ends of short leafy branchlets.

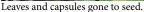
• Fruits: Capsules short-stalked, green, hairless, with a long pointed beak; styles short (to 0.7 mm).





Leaves







Catkins

#### Similar Species

Tall blueberry willow (*Salix 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).

# Bog Willow

Salix pedicellaris









#### **Key Characters**

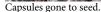
- Growth form: Low shrub (to 1.5 m) with erect branches.
- Leaves: Leaves oblong, rounded at both ends, strongly blue-toned, hairless on both surfaces, strongly glaucous below,
- with a pale midrib and numerous closely-spaced, parallel lateral veins.
- Flowers: Pistillate catkins short, egg-shaped to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













Capsule

#### Similar Species

Grey-leaved willow (Salix glauca) is a taller shrub (to 3 m) with densely silky-hairy leaves (at least on the lower surface), longer pistillate catkins, and unstalked, 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.

### Sitka Willow

Salix sitchensis

Ws06

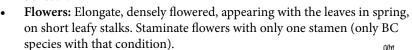
Ws51

Fl04

Fl50

#### **Key Characters**

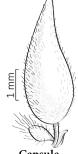
- **Growth form:** Large shrub (1-8 m). Twigs are short and hairy.
- Leaves: Leaves usually oblancelate to obovate, shiny silky-hairy with whitish hairs beneath.



Fruits: Capsules short-stalked, beaked, short-hairy.







Leaves.

Capsule



Twigs and catkins.

Capsules.

#### Similar Species

**Drummond's willow** (*Salix drummondii*) has narrower oblanceolate to elliptic leaves that are white-woolly below (not silky or shiny).

Scouler's willow (Salix scouleriana) has similar leaf shape, but has lightly glaucous, sparsely hairy leaf undersides that lack silky, glossy hairs.

# Douglas Maple Acer glabrum

#### **Key Characters**

- Growth form: Deciduous shrub or small tree, up to 10 m tall; stems branching. Twigs are slender and whip-line, usually drooping.
- Leaves: Leaves opposite, 2-12 cm wide, palmately 3-5 lobed, margins jagged toothed, paler on the lower surface.
- Flowers: Greenish-yellow, in small axillary clusters of up to 10 flowers.
- Fruits: Winged and 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.



Leaves.



Flowers.





Branches.

#### Similar Species

**Bigleaf maple** (*Acer macrophyllum*) 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





#### **Key Characters**

- **Growth form:** Deciduous shrub or tree up to 12 m tall, but usually 2-5 m tall.
- Bark: Smooth, greyish-brown, with whitish bumps ('lenticels'), often lichen-covered.
- Leaves: Leaves alternate, unlobed, ovate, margins coarsely to irregularly toothed bluntly double-toothed, lateral veins regular and evenly spaced. Margins of leaves flat.
- Flowers: Male flowers in drooping staminate catkins.
- Fruits: Small, egg-shaped, woody, cone-like catkins that are persistent through winter.







Leaf

Flowers

Fruits.

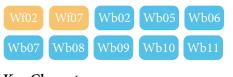
#### Similar Species

**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** (*Alnus rubra*) is strictly a coastal species; it is a taller tree with the margins of the leaves somewhat rolled under.

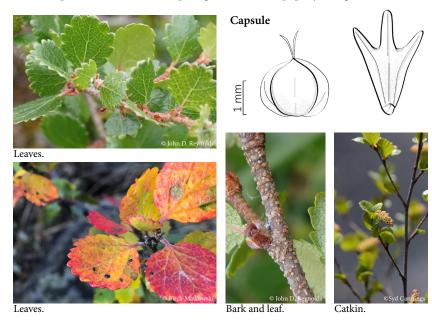
### **Dwarf Birch**

#### Betula glandulosa



#### **Key Characters**

- **Growth form:** Low to medium-sized shrub. Twigs are 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.
- Flowers: Male flowers in small, drooping catkins at branch tips.
- Fruits: 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 (*Betula pumila*) is very similar and often 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.

### Water Birch

#### Betula occidentalis

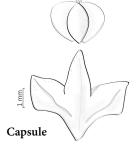


#### **Key Characters**

- **Growth form:** Large shrub to small tree (3-10 m tall), usually multi-stemmed.
- Bark: Dark brown with pale spots ('lenticels')
  when young, remaining dark purplish-brown at
  maturity.
- Leaves: Alternate, unlobed, ovate, rounded to sharp-pointed at the tip, usually doubly saw-tooled 1-7 cm long, leaf stalks more than 1 cm long.
- Flowers: Male flowers in drooping staminate catkins.
- Fruits: Female catkins small (2-3 cm), erect to drooping, cylindric, composed of numerous broadly 3-pronged scales and papery-winged seeds.



Growth form.









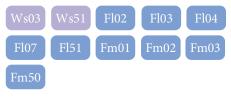
Fruits.

#### **Similar Species**

Paper birch (*Betula 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-shape.

## Red-osier Dogwood

Cornus sericea



#### **Key Characters**

- Growth form: Medium-sized shrub 1-6 m tall. Young branches opposite. Twigs are red to reddish-purple, later turning greyishgreen.
- 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.
- Fruits: Berries small, white, single-seeded.



Bark.



Leaves.



Flowers.



Fruits.

#### **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



#### **Key Characters**

- **Growth form:** Medium-sized shrub 0.5-2 m tall with stems erect.
- Leaves: Deciduous and alternate, appearing whorled but nearly stalkless. Leaves pale green, hairless, and covered with a waxy bloom, broadest near the tip and rounded, 1.5 cm long, 0.4-1 cm wide.
- Flowers: Flowers distinctive, with 5 spreading, salmon-coloured petals and a strongly recurved style.
- Fruits: Small, round capsules with a recurved style when young.





Fruit.



Flowe

#### 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 ferrruginea*) is similar when not flowering, but has strongly skunky-scented leaves that are often bluetinged.

### Salal

#### Gaultheria shallon



#### **Key Characters**

- **Growth form:** Creeping to erect evergreen shrub usually up to 1.5m tall, but up to 3m tall. May form dense thickets.
- Leaves: Broadly egg-shaped 3-9 cm long, 1.5-6.5 cm wide, leathery, dark green; leaf margins finely toothed.
- Flowers: 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.



Growth form.



Leaves



Flowers.



Fruits.

#### **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



Wb53

#### **Key Characters**

- Growth form: Low, spreading coniferous shrub.
- Leaves: Needles abundant, dense, curved, sharp-pointed, with prominent white lines of stomata on upper surface.
- Fruits: Produces small, bluish-purple (when mature), fleshy, berry-like fruits.







Growth form.

Leaves.





Fruits.

#### Similar Species

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

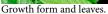
# Black Twinberry Lonicera involucrata var. involucrata

Ws01	Ws03	Ws07	Ws11	Ws51
Wb07	Fl01	Fl02	Fl04	Fl05
Fm02	Fm50			

#### **Key Characters**

- Growth form: Highly distictive deciduous to straggly shrub (0.5-5 m).
- Leaves: Opposite, short-stalked, lanceolate, apex pointed, 3-16 cm long, 2-8 cm wide.
- Flowers: Pairs, yellow, tubular, glandular; flower pairs backed by two large, glandular, reddish bracts.
- Fruits: Pairs of shiny black berries within retained reddish bracts.







Fruit.



Flowers.

### Sweet Gale

Myrica gale

Wb50 Wb51

#### **Key Characters**

- Growth form: Low to medium-sized shrub (0.5-2m). Twigs are finely hairy when young, glabrous when mature and dark reddish.
- Leaves: Strongly spicy-scented, oblanceolate, base long-tapering, apex rounded to blunt, margins coarsely toothed on outer half.
- Flowers: 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.



Growth form.



Leaves.



Female flowers.



Male flowers

#### **Similar Species**

Hardhack (Spirea douglasii) 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



Fm50

#### **Key Characters**

- Growth form: Highly distinct deciduous shrub; 1-3 m tall, branching. 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.



Growth form.



Flower.



Stem with sharp prickles.



Berries.



### Labrador Tea

Rhododendron groenlandicum



#### **Key Characters**

- Growth form: Small, evergreen shrub (0.5-1.5 m), but can vary depending on conditions and may be stunted.
- Leaves: Oblong, leathery, margins rolled under (often strongly), underside with dense woolly, whitish (juvenile) or reddish (mature) hairs.
- Flowers: White, 5-petalled, in clusters at end of current years growth.
- Fruits: Small capsules; old fruits usually retained at end of previous year's growth.



Growth form



Leaves with mature, woolly hairs.





Fruits.

#### **Similar Species**

**Trapper's tea** (*Rhododendron. columbianum*) is similar, but is restricted to the southern interior; it has broader, flatter leaves with sparsely hairy, gland-dotted lower surfaces. These species are primarily distinguished by distribution and the underside of the leaves, as Trapper's Tea have white hairs on the underside of the leaves, rather than the the rusty colored hairs on Labrador tea.

### Stink Currant

Ribes bracteosum

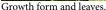


Fl51

#### **Key Characters**

- Growth form: Medium-sized to tall shrub (to 3 m). Entire plant strongly skunkyscented; often detectable from several meters away.
- Leaves: Leaves large, palmately 5-7 lobed with pointed lobes.
- Flowers: White to greenish-white or bronzy, produced in long, erect clusters of 20-40.
- Fruits: Berries in long clusters, bluish-black with a strong whitish bloom, appearing pale blue.







Flower.



Fruit

#### **Similar Species**

**Thimbleberry** (*Rubus parviflorus*) 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 ssp. sayi

Fm03

#### **Key Characters**

- Growth form: Small to medium-sized deciduous shrub (0.3-1.5 m). 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.



Growth form, flowers and leaves.



Prickly stems with fall foliage.



Flower.



Fruits.

#### **Similar Species**

**Wood's rose** (*Rosa Woodsii*) 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** (*Rosa nutkana*) lacks small, bristly stem prickles but has scattered larger, thick, flattened prickles.

### Nootka Rose

Rosa nutkana



#### **Key Characters**

- **Growth form:** Medium-sized to large shrub (0.5-3 m). 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.



Growth form, flower and leaves.



Stem with prickles.



Flower.



#### **Similar Species**

Wood's rose (Rosa woodsia) 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 (Rosa acicularis) has fully bristly-prickly stems and twigs, lacks large stout prickles, and has smaller, pear-shaped to elongate fruits.



### Wood's Rose

Rosa woodsii

Fl07

#### **Key Characters**

- **Growth form:** 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 pearshaped.



Growth form, flowers and leaves.



Flower.



Stems with prickles.



Fruits.

#### **Similar Species**

**Prickly rose** (*Rosa acicularis*) 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** (*Rosa nutkana*) lacks small, bristly stem prickles but has scattered large, thicker, flattened prickles, and produces solitary (rarely paired) flowers.

# Thimbleberry

Rubus parviflorus



#### **Key Characters**

- Growth form: Highly distinctive mediumsized shrub (1-2.5 m), often thicket-formin Twigs lack prickles.
- Bark: Light brown to grey and flaking-off when mature.
- 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.



Growth form with flowers.





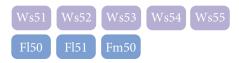






# Salmonberry

Rubus spectabilis



#### **Key Characters**

- Growth form: Highly distinctive mediumsized shrub (1-4 m), often forming dense thickets with erect stems. Twigs are covered in fine, bristly prickles.
- Bark: Light brown.
- Leaves: Alternate, dark green, with 3 coarsely toothed leaflets.
- Flowers: 5 large petals, spreading, bright magenta-pink. Appear in early spring, before the leaves.
- Fruits: Raspberry-like, soft, juicy, yellow to red or purplish-red (often on the same shrub); fruits ripen in early summer.







Flower.



Stem with prickles.



Fruit.



# Coastal Red Elderberry

Sambucus racemosa var. arborescens











#### **Key Characters**

- Growth form: Large shrub to small tree (1-6 m). Twigs are prominent raised bumps and a large, spongy pith.
- Leaves: Opposite, large, pinnate with 5-7 lanceshaped leaflets; leaflet margins coarsely toothed.
- Flowers: Small, white, numerous in egg-shaped clusters that are longer than wide.
- Fruits: Produces rounded or oblong clusters of small, shiny, bright red berries.



Growth form.



Fruits.



#### Similar Species

Black-berried elderberry (Sambucus 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 (Sambucus cerulea) is a small tree of upland habitats; it has larger, flat clusters of flowers and small, pale blue berries.

### Hardhack

#### Spiraea douglasii



#### **Key Characters**

- Growth form: Medium-sized shrub (0.5-2.5 m), often forming dense thickets with stems erect and very branched. Twigs are slender and whip-like, usually drooping.
- 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: Small brown capsules; remain on the stem throughout the winter following seed dispersal.



Growth form.



Leaves.



Fruits (left) and flowers (right).

#### **Similar Species**

**Subalpine spiraea** (*Spiraea splendens*) is occasional at high elevations in southern B.C.; it is a smaller shrub with smaller, flattopped clusters of pink flowers. Other Spiraea species have white to pinkish-white flowers.

**Sweet gale** (*Myrica gale*) has hairless, blue-tinged leaves with a long-tapering base; the leaves are strongly spicy-scented.

## Common Snowberry

Symphoricarpos albus





#### **Key Characters**

- **Growth form:** Small to medium sized shrub (0.5–3m).
- 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.



Growth form and leaves.



Flowers.



Flowers.



Fruits.

#### Similar Species

Western snowberry (*Symphoricarpos 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







#### **Key Characters**

- Growth form: Small to medium-sized shrub (0.5-2 m). Twigs are greenish to reddish-green.
- Leaves: Usually widest below the midpoint, blunt-tipped, sparsely toothed along the margins, sparsely glandular along midrib below.
- Flowers: Corollas broadly urn-shaped, bronzy-pink, about as long as wide. Flowers appear with the leaves in spring.
- Fruits: Bluish-black, with little or no pale bloom.



Growth form









Fruits.

#### Similar Species

**Oval-leaved blueberry** (*Vaccinium ovalifolium*) 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 (Vaccinium membranaceum) has leaves with a more sharply acute apex and finely, densely small toothed margins.

## Oval-leaved Blueberry

Vaccinium ovalifolium



Ws10







#### **Key Characters**

- **Growth form:** Small to medium-sized shrub (0.4-2 m). Twigs are usually red or greenish-red.
- Leaves: Leaves usually widest around the midpoint, blunt-round tipped, margins untoothed.
- Flowers: Corollas narrowly urn-shaped, white to pale pinkish, longer than wide. Flowers appear before the leaves in spring.
- Fruits: Fruits pale blue, with a strong pale bloom.



Growth form.



Leaves.



Flowers.



Fruit

#### Similar Species

Alaska blueberry (*Vaccinium alaskaense*) 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 (*Vaccinium membranaceum*) has leaves with a more sharply acute apex and finely, densely small toothed margins, as well as shiny black berries.

# Highbush Cranberry

Viburnum edule





#### **Key Characters**

- Growth form: Small to medium-sized shrub 0.5-3.5m tall, sprawling to an erect 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.













Flowers.



Fruits.

#### Similar Species

American bush-cranberry (Viburnum 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.

# Bog Rosemary Andromeda polifolia









#### **Key Characters**

- **Growth form:** 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: Small clusters at stem tips, pinkish to nearly white, urn-shaped, long-stalked, often nodding.
- Fruits: Small, erect, pinkish-red, 5-lobed capsules.



Growth form.



Flowers.



Leaves.

#### Similar Species

Western bog-laurel (Kalmia microphylla) has larger, brighter pink, cup-shaped flowers with triangular bumps on the outside of the corolla, as well as broader, elliptic leaves.

# Crowberry

Empetrum nigrum



Wb02

Wb51

Wb52

Wb53

#### **Key Characters**

- Growth form: Evergreen low shrub; stems can be trailing and branching, 15-30 cm long, stems hairy.
- **Leaves:** Evergreen, short, usually in whorls of 4, margins rolled under, resembling conifer.
- Flowers: Tiny, short-stalked, inconspicuous, reddish-purple, in small groups in leaf axils.
- Fruits: Shiny, black, spherical berries in small clusters.





Leavec



Fruits.

#### **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 Wintergreen Gaultheria hispidula



#### **Key Characters**

- **Growth form:** Mat forming; stems creeping 10-40 cm long, thread-like, densely covered with coarse, appressed, rusty-brown hairs.
- Leaves: Alternate, small (4-10 mm long), 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, bell-shaped, with 4 fused petals, whitish, sepals coarsely brown-hairy. Usually not evident from above.
- Fruits: Berry-like, small, oblong, white, with scattered coarse rustybrown hairs; fruits have a faint wintergreen flavor when eaten.







#### Leaves.

#### **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.

## Western Bog Laurel

Kalmia microphylla var. occidentalis

Wf50	Wb02	Wb04	Wb10	Wb12
Wb13	Wb50	Wb51	Wb52	Wb53

#### **Key Characters**

- **Growth form:** Low shrub (10-50 cm tall) with erect branched stems.
- 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: 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.





lowers.



Growth form

Fruits

#### **Similar Species**

**Bog-rosemary** (*Andromeda polifolia*) has narrower, almost linear leaves that are strongly inrolled, as well as smaller urn-shaped flowers.

**Labrador tea** (*Rhododendron groenlandicum*) is similar when not flowering, but its leaves are densely hairy below (white-hairy when young, rusty-hairy when mature).

# Cloudberry

Rubus chamaemorus









#### **Key Characters**

- Growth form: Small (5-30 cm); stems unbranched usually buried in the substrate, plant appearing herbaceous.
- Leaves: 1-3 per flowering stem, alternate, shallowly palmately 5-lobed with rounded lobes, margins blunt-toothed, green and smooth to thinly hairy above, paler and hairier below, especially on the veins.
- Flowers: Solitary at stem tip, with 4 or 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.



Fruit





Flower.

#### Similar Species

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

## Bog Cranberry

Vaccinium oxycoccos

Wf10	Wb01	Wb02	Wb04	Wb05
Wb07	Wb10	Wb11	Wb12	Wb50

#### **Key Characters**

- **Growth form:** Low shrub, with thread-like, creeping, woody stems (15-50 cm long).
- 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**

Serviceberry willow (*Salix 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).

# Bog Blueberry Vaccinium uliginosum



### **Key Characters**

- Growth form: Low shrub, sometimes prostrate, stems 10-30 cm tall.
- Leaves: Blue-tinged, often circular or oval (sometimes oblong to obovate).
- Flowers: Petals pinkish, fused into a nearly globular, urn-shaped corolla.
- Fruits: Berries pale blue, covered in a waxy bloom, globular.







Growth form.

Leaves.





Flowers.

### Similar Species

Dwarf blueberry (Vaccinium 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

### Wb03 Wb06

#### **Key Characters**

- Growth form: Low shrub, often mat-forming with stems 5-25 cm long.
- Leaves: Alternate, evergreen, leathery, shiny bright green, hairless, oblong with rounded tips, margins rolled under.
- Flowers: Either one or several bell-shaped, whitish to pinkish flowers in small clusters at stem tips; stalks glandular.
- Fruits: Bright red, spherical berries with persistent sepals; similar in appearance and flavor to cranberries.



Growth form.







Fruits and leaves.

### Similar Species

Kinnikinnick (Arctostaphylos uva-ursi) is similar, but has darker green oblanceolate leaves, pink urn-shaped flowers, and nonglandular flower stalks; the red berries are dry and mealy, and lack persistent sepals.





### Baneberry

Actaea rubra



#### **Key Characters**

- Growth form: Perennial herb from woody stem-base with 1 to several steams, 40-100 cm tall.
- 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.
- Highly toxic.







Leaves.



Fruits.

### **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



#### **Key Characters**

- **Growth form:** Perennial herb from short, thick stem-base, 5-40 cm tall.
- Leaves: Mostly basal, heart-shaped to kidneyshaped 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. Flowers in early spring, often while snow still remains.



Growth form.







Leaves.

### **Similar Species**

**Globeflower** (*Trollius albiflorus*) 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** (*Nephrophyllidium crista-galli*), 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







#### **Key Characters**

- Growth form: Perennial herb with solitary to a few stems and usually branched, 0.5-2 m tall. Stems chambered at the base when cut longitudinally.
- Leaves: Basal and along the stem, twicecompound; 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.
- Highly toxic.





Leaves.



Elever

### Similar Species

Water-parsnip (*Sium suave*) 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 ssp. alpina

Fl51

#### **Key Characters**

- Growth form: Perennial herb from slender rhizome; stems erect 10-50 cm tall and forming extensive colonies.
- Leaves: Opposite, stalked, blades heart-shaped, margins toothed, 2-6 cm long entire to toothed and shorty-hairy on the lower surface with tips pointed.
- Flowers: 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.





Leaves.



Growth form.

Flowers.

### **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

Wm01 Wm02 Wm51 Wm052 Wf02 Wf07 Wf51 Wb05 Wb08 Wb11

### **Key Characters**

- Growth form: Highly distinct perennial, forms long-creeping and often floating rhizomes; stems prostrate to ascending, 20-100 cm long/tall, frequently reddish below. 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 2-8 cm long; leaflets blue-green, margins coarsely toothed.
- Flowers: Dark purplish-red, sepals larger and petal-like, petals smaller
  and narrower than sepals; center 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.



Flowers amongst lily pads.



Leaves.



Flowers.

### Three Leaved Goldthread

Coptis trifolia



#### **Key Characters**

- Growth form: Highly distinct, small, delicate, perennial herb with stems erect 3-12 cm tall, growing from yellow to orange rhizome.
- Leaves: Basal, evergreen, leathery, longstalked, 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.



Growth form.







Flowers.

### **Great Sundew**

Drosera anglica

Wb12 Wb13 Wf10

### **Key Characters**

- Growth form: Small, carnivorous, perennial herb with erect stems 5-18 cm.
- Leaves: 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.





Growth form.



### **Similar Species**

Round-leaved sundew (Drosera rotundifolia) often occurs with Drosera anglica; it is smaller and the leaf blades are circular and sharply differentiated from the leaf stalk.

### Round Leaved Sundew

Drosera rotundifolia



### **Key Characters**

- Growth form: Small, carnivorous, perennial herb 5-25 cm tall.
- Leaves: 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.





Leaves.



Growth form.

### **Similar Species**

**Great sundew** (*Drosera anglica*) 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 ssp. trifidum



#### **Key Characters**

- Growth form: Delicate herb; stems weak, usually trailing or clambering, square in x-section, with hooked bristles along the angles. Stems 10-25 cm.
- **Leaves:** 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.





Leaves.



Flowers.

### Similar Species

Growth form

Marsh bedstraw (Galium palustre) is uncommon in B.C.; it is larger and more erect that small bedstraw, with often broader leaves and larger, 4-petalled flowers in larger, branching inflorescences.

Labrador bedstraw (Galium labradoricum) is rare in NE B.C.; it is similar in size to small bedstraw, but has more erect stems and 4-petalled flowers.

### Cow Parsnip

Heracleum maximum





Fl50

### **Key Characters**

 Growth form: Tall perennial, 1-3 m tall with robust, sparingly branched stems that often remain standing the following the growing season.



- 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.



Growth form.



Leaves.



Flower.



Flower.



Fruit.

### **Similar Species**

**Giant hogweed** (*Heracleum mantegazzianum*) is occasional in SW B.C., 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



#### **Key Characters**

- Growth form: Perennial herb low and matforming with freely rooting and matted solons, stems numerous, 3-25 cm.
- Leaves: Opposite, small (4-15 mm long), 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.





Leaves.



### Similar Species

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

### Leatherleaf Saxifrage

Leptarrhena pyrolifolia

Wf03

Wf12

Wf13

### **Key Characters**

- Growth form: Perennial herb with stems erect,
   10-40 cm tall.
- 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 atop leafless stems. Early flowering.
- Fruits: Bright red, paired follicles in open, branched clusters; highly conspicuous and long-persistent.



Growth form.



Leaves



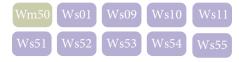
Flower.



Fruit.

### Skunk Cabbage

Lysichiton americanus



#### **Key Characters**

- Growth form: Perennial semi-aquatic herb, 30-70 cm tall, but often beyond 1.5 m tall. Emerges in early spring, sometimes before snow has melted; entire plant with skunky odour.
- 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).



Growth form

Leaves.





Flowers.

### False Lily of the Valley

Maianthemum dilatatum

Fl50

Fm50

Ws52

Ws53

### **Key Characters**

- **Growth form:** Perennial herb with stems erect and unbranched 10-35 cm tall.
- Leaves: Few (2-3), alternate, simple, broadly heart-shaped, stalked; sterile, deeply heartshaped leaves often abundant and forming a carpet.
- Flowers: 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.



Growth form.



Flower.



Fruit.



Fruit.

### **Similar Species**

Three-leaved false solomon's-seal (*Maianthemum trifolium*) is restricted to NE and C B.C.; it usually occurs in bogs and fens, and has unstalked leaves with tapered bases.

### Buckbean

Menyanthes trifoliata

#### **Key Characters**

- **Growth form:** Perennial semi-aquatic herb with a thick rhizome often in standing water, stems prostrate or ascending, 15-40 cm long/tall. Often only the leaves and flowers emerging.
- Leaves: Composed of 3 oblong or egg-shaped leaflets; leaflets held upright.
- Flowers: 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.



Growth form.



Flower.



Leaves.



Fruit.

### Deer-cabbage

Nephrophyllidium crista-galli





### **Key Characters**

- Growth form: Perennial herb with stems growing from a thick rhizome. Stems erect, unbranched, 10-50 cm tall.
- Leaves: All basal, long-stalked, kidneyshaped and with strongly overlapping basal lobes, margins coarsely toothed.
- Flowers: 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.





Growth form.



Flowers.

### **Similar Species**

White mountain marsh marigold (Caltha leptosepala) 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.

### Pacific Water Parsley

Oenanthe sarmentosa



#### **Key Characters**

- Growth form: Perennial herb with soft, weak stems that are loosely branched that are usually trailing or clambering, often reclining to ascending and up to 1 m long.
- Leaves: Dark green, twice-compound, parsleylike, 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.





Flowers.



Leaves. Fruits.

#### Similar Species

**Douglas' water hemlock** (*Cicuta douglasii*) has erect, often purpletinged stems, narrower leaflets, and transversely chanelled 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





#### **Key Characters**

- Growth form: Perennial herb, can have a slightly branched stem base and up to 3 stems, 0.3-1 m tall and branching.
- Leaves: Twice-compound, stalked, soft in texture, hairy; leaflets egg-shaped, coarsely toothed.
- Flowers: Appearing in early spring, small, inconspicuous, greenishwhite, 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.



Growth form.



Leaves.



Flower.



Fruit.

### Similar Species

Purple sweet-cicely (Osmorhiza purpurea) is very similar, but has purplish flowers and generally occurs at higher elevations.

Blunt-fruited sweet-cicely (Osmorhiza depauperata) has fruits that are club-shaped and without a beak at one end; it is uncommon in the B.C. interior.

### Water Smartweed

Persicaria amphibia



#### **Key Characters**

- Growth form: Perennial semi-aquatic herb, with floating leaves and flowers, flowering branches 30-80 cm tall/long. Stems submerged, emergent, or terrestrial, with papery sheaths around each leaf node; stems of emergent and terrestrial plants erect or ascending.
- Leaves: 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.







Flowers

### **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.

### Fragrant White Rein Orchid

Platanthera dilatata

Wf03 | Wf09 | W512 | Wb52

#### **Key Characters**

- **Growth form:** Perennial herb with basal leaves and stem leaves, single stemmed flower spike 15-100 cm tall. Stems erect, unbranched, leafy.
- Leaves: Ascending, strongly sheathing the stem, lanceolate, tips usually blunt.
- 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.



### Common Silverweed

Potentilla anserina ssp. anserina



#### **Key Characters**

 Growth form: Perennial low-growing herb with long stolon or runners rooting and producing leaf clusters at each node. Matforming; 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.





Leaves



Flowers

### **Similar Species**

Pacific silverweed (*Potentilla 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 B.C.

### Pink Wintergreen

Pyrola asarifolia



#### **Key Characters**

- **Growth form:** Perennial, evergreen herb with basal leaves and single flowering-stem 13-40 cm tall.
- 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.







Flowers.

Growth form.

#### Similar Species

**Green-flowered wintergreen** (*Pyrola chlorantha*) is a smaller, fewer-flowered species with greenish-white flowers and smaller leaves with more circular blades and longer stalks.

Lesser wintergreen (Pyrola 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

Wb51 Wb52 Wb53

#### **Key Characters**

**Growth form:** Basal compound leaves 10-40 cm long, flowering stems reaching up to 150 cm.

Leaves: Mostly basal, compound, with 7-15 egg-shaped, rounded, stalked, coarsely toothed leaflets.

- Flowers: 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).







Flowers.

### **Similar Species**

Sitka burnet (Sanguisorba stipulate) 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 (Sanguisorba stipulata menziesii) is rare in coastal B.C.; it is similar to Sitka Burnet, but the flowers (sepals and stamens) are reddish or purplish.

### Sitka Burnet

Sanguisorba stipulata



#### **Key Characters**

- Growth form: Perennial herb with basal compound leaves and flowering stems 25-120 cm tall, from a stout rhizome.
- Leaves: Mostly basal, compound, with 9-1'. egg-shaped, rounded, stalked, coarsely toothed leaflets.
- Flowers: Long, erect spikes that exceed the leaves. 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).









Growth form.

### Similar Species

Great burnet (Sanguisorba officinalis) has similar leaves, but the inflorescence is a small, short, dense, oblong cluster of dark purple flowers with short stamens.

Menzies' burnet (Sanguisorba. menziesii) is rare in coastal B.C.; it is similar to Sitka Burnet, but the flowers (sepals and stamens) are reddish or purplish.

### Scheuchzeria

Scheuchzeria palustris



#### **Key Characters**

- Growth form: Perennial aquatic grass-like herb 10-40 cm tall. 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.



Growth form.





Fruits.

### **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



Wf04

#### **Key Characters**

- Growth form: Perennial herb with woody base, leafy stem with inflorescence at top of stem, 0.2-1.5m tall. Stems erect, unbranched.
- Leaves: Along the stem, short-stalked below and unstalked above, narrowly triangular, margins coarsely toothed.
- Flowers: Heads in branched, rounded or flat-topped clusters atop the stem. Flower heads yellow, with both ray and disc florets; involucral 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.







Leaves.



Flowers.



Fruits

### Hemlock Water Parsnip

Sium suave



#### **Key Characters**

• Growth form: Can be semi-aquatic from a short erect stem base with sparse leaves and solitary stems 0.5-1.2 m tall. Often emergent in shallow water. Stems erect, usually branching above, not chambered at the base.



- Leaves: Basal and along the stem, compound; primary leaves oncepinnate 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.



Growth form



cuves.



Fruits



#### Flowers.

### **Similar Species**

**Douglas' water hemlock** (*Cicuta douglasii*) 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



#### **Key Characters**

- Growth form: Entire plant skunky-scented, especially when crushed. Stems erect, square in x-section, usually unbranched, bristlyhairy.
- 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.







Logyroo



Flowers.

#### Similar Species

Mexican hedge nettle (*Stachys mexicana*) is uncommon in coastal B.C., mainly along seacoasts; it is more densely shaggy-hairy, and the flowers are shorter (to 1.5 cm long).

Marsh hedge nettle (*Stachys pilosa*) is widespread in interior B.C.; it has unstalked, lanceolate leaves and shorter (to 1.5 cm), whitish to pale pink flowers.

### Clasping Twistedstalk

Streptopus amplexifolius

#### **Key Characters**

- Growth form: Perennial herb with leafy stems erect and branched, sometimes bent at nodes, 40-120 cm tall. Stems branched, erect, zigzagged.
- 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.





Fruits.



Flowers.

### **Similar Species**

Rosy twistedstalk (Streptopus lanceolatus) 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.

# Rosy Twistedstalk

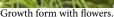
Streptopus lanceolatus var. curvipes



#### **Key Characters**

- **Growth form:** Perennial herb with leafy stems erect, usually unbranched and not bent, 10-45 cm tall. 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.







Leaves



Fruits.

### Similar Species

Clasping twistedstalk (*Streptopus amplexifolius*) 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.

# Douglas' Aster

Symphyotrichum subspicatum



#### **Key Characters**

- **Growth form:** Perennial herb with ascending leafy stems that can be simple or branched 0.1-1.0 m. Stems erect, often branching, leafy.
- Leaves: Unstalked, linear to lanceolate, margins smooth to coarsely toothed.
- Flowers: 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.
- Represents a species complex, including *Symphyotrichum subspicatum*, *Symphyotrichum chilense*, and *Symphyotrichum novi-belgii*.







Leaves.



Flower

### **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

Wb51 Wb52 Wb53 Wf10

#### **Key Characters**

- Growth form: Perennial herb with grass-like basal leaves and flowering stems erect and 10-50 cm tall. Stems erect, densely stickyglandular.
- 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.







Flowers.



### Similar Species

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

# Seaside Arrow Grass

Triglochin maritima



#### **Key Characters**

- Growth form: 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 tallerect 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.







Inflorescence.

Capsules.

### **Similar Species**

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

# Stinging Nettle Urtica dioica

#### **Key Characters**

Growth form: A highly distictive perennial herb with erect stems simple or branched and 100-300 cm tall. 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.



Growth form with flowers.



Leaves.



Flowers.

# Sitka Valerian

Valeriana sitchensis



#### **Key Characters**

- **Growth form:** Perennial herb with basal leaves and flowering stems that may have whorls of leaves 30-120 cm. Stems erect, leafy. Very strong smelling with a pungent odor, especially in late summer and fall.
- Leaves: Opposite, compound with 5-7 broad, coarsely toothed leaflets.



\*Primarily in middle and upper elevations

- 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.



Growth form





Fruits



Flowers.

### Similar Species

Marsh valerian (Valeriana 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

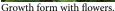
Veratrum viride var. eschscholzianum



#### **Key Characters**

- Growth form: Highly distictive perennial herb with unbranching and leafy stems 0.7 m tall.
- 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.
- Highly toxic.







Leaves



Flowers.



# Marsh Violet

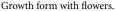
Viola palustris



#### **Key Characters**

- **Growth form:** Low-growing, early-flowering perennial. Basal leaves and solitary flowering stems.
- Leaves: All basal or arising directly from the rhizome, long-stalked, heart-shaped, tip blunt, margins shallowly round-toothed.
- Flowers: Solitary, on 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.







Leaves and flowers.



### **Similar Species**

Small white violet (Viola macloskeyi) is a smaller species with white (not purple-tinged) petals.

**Dwarf marsh violet** (*Viola epipsila*) is very similar to Marsh violet, but the bracts are placed above the midpoint of the flower stalk.

# Rocky Mountain Pond Lily

Nuphar polysepala



#### **Key Characters**

- Growth form: Perennial aquatic herb growing submerged or emersed with leaves floating in water up to 2m deep.
- 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.







Flower

### Similar Species

Variegated yellow pond lily (*Nuphar 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 B.C.; it has white to pink, spreading, pointed petals that contrast with the numerous yellowish stamens.

# Richardson's Pondweed

Potamogeton richardsonii



#### **Key Characters**

- Growth form: Aquatic, fully submersed herb with stems lax, weak unbranched and up to 150 cm long.
- Leaves: All submerged (none floating), narrowly to broadly lanceolate, often recurved, margins wavy and untoothed; leaf bases unstalked 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.









Growth form.

Leaves

### **Similar Species**

Long stalked pondweed (Potamogeton praelongus) has longer, narrower leaves and the flowering/fruiting spikes borne at the ends of long, whitish stalks from the upper leaf axils.

**Curled pondweed** (*Potamogeton crispus*) is introduced in S B.C.; it has narrower leaves and the leaf margins are finely toothed much more conspicuously wavy.

# Greater Bladderwort

Utricularia vulgaris ssp. macrorhiza

Wm01 Wm04 Wm03 Wm04 Wm05

## Wm06 Wm51

### **Key Characters**

- Growth form: Carnivourous, submerged aquatic species, unrooted and free-floating, up to 1 m long.
- 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.



Growth form.



Roots.



Flowers



Leave

### **Similar Species**

Flat leaved bladderwort (*Utricularia intermedia*) 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.





© Trevor Van Loon

# Yellow Flowered Sedge

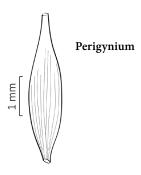
Carex anthoxanthea



#### **Key Characters**

- **Growth form:** 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.







Perigynia.

### Similar Species

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

# Water Sedge

#### Carex aquatilis

Wm01	Wm02	Wf01	Wf02	Wf03
Wf04	Wf05	Wf07	Wf10	Wf13
Ws04	Ws05	Wb05	Wb06	Wb07
Wb08	Wb10	Wb11		



#### **Key Characters**

- **Growth form:** 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: 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.







Perignia.



Perigynium



Perignia.

### Similar Species

**Sitka sedge** (*Carex sitchensis*) is tufted and has broader, greener leaves and long-stalked, nodding lower female spikes.

Kellogg's sedge (*Carex 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



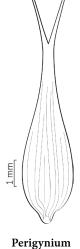
#### **Key Characters**

- **Growth form:** Stems erect, to 125 cm tall, rhizomatous, often forming extensive colonies.
- Leaves: Flat, grass-like, long-sheathed, softhairy; sheaths soft-hairy, reddish towards the stem base, becoming shredded into thread-like filaments.
- **Inflorescence:** 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.









Perigynia.

### Similar Species

**Beaked sedge** (*Carex utriculata*) has spreading perigynia with much shorter prongs at the tip of the beak, and lacks soft hairs on the leaves and sheaths.

# Cordroot Sedge

Carex chordorrhiza



#### **Key Characters**

- Growth form: Stems erect, arising singly from a trailing above-ground stolon.
- Leaves: Short, flat, narrow, grass-like, 1-3 per stem, often produced from sterile stem.
- **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.







Perigynium



Perigynia.

### 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.

# Soft Leaved Sedge

Carex disperma

Wb05

Wb08

Wb09

#### **Key Characters**

- Growth form: Stems loosely tufted, slender, weak, usually drooping, to 60 cm tall.
- Leaves: Very slender, flattened, grass-like, to
   1.2 mm wide.
- Inflorescence: Several well-separated clusters
  of 1-6 nearly stalkless perigynia; lowest spike subtended by fine bristlelike bract.
- Perigyni: Pale green to pale brown, egg-shaped, tip rounded to short-pointed, beakless, inflated; female scales egg-shaped, pointed, pale, shorter than the perigynia.







Inflorescence.

Perigynium



Perigynia.

### Similar Species

Three-seeded sedge (*Carex 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 exsiccata



#### **Key Characters**

- Growth form: 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:** 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, unstalked, 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-reddish-brown; female scales shorter than the perigynia.



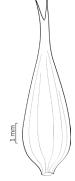




Inflorescence.



Perigynia.



Perigynium

### **Similar Species**

**Beaked sedge** (*Carex utriculata*) has broader, spreading perigynia (vs. ascending perigynia in Inflated Sedge) and broader leaves that lack the shredded, filamentous leaf sheaths.

Lesser bladder Sedge (*Carex vesicaria*) is very similar, 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 B.C.

# Slender Sedge

Carex lasiocarpa

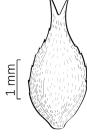
Wf06 Wf10

#### **Key Characters**

- Growth form: Stems very slender, erect, to 120 cm tall.
- Leaves: Stems very slender, erect, to 120 cm tall.
- Inflorescence: 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 leaflike 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.







Perigynium



Perigynia.

### Similar Species

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

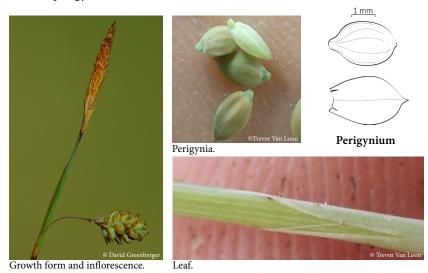
# Shore Sedge

#### Carex limosa

Wf07	Wf08	Wf09	Wf10	Wf11
Wf13	Wb11	Wb12	Wb13	

#### **Key Characters**

- **Growth form:** Stems solitary, erect, from long slender rhizomes.
- Leaves: Deeply channelled, grass-like, 1-3 per stem, often produced from sterile stems.
- **Inflorescence:** 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** (*Carex magellanica*) has longer, narrower female scales that are longer than the perigynia, giving the spikes a bristly appearance.

**Many-flowered sedge** (*Carex pluriflora*) has blackish female scales and is restricted to coastal environments.

# Pale Sedge

Carex livida

Wf10

Wb51

Wb52

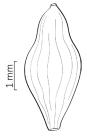
Wb53

#### **Key Characters**

- Growth form: Stems solitary, erect or arching, strongly bluish, from long slender rhizomes.
- Leaves: Flat, grass-like, strongly bluish, often produced from sterile stems.
- Inflorescence: 1-3 cylindrical spikes, lowest spike short-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.







Perigynium



Growth form.

Perigynia.

### **Similar Species**

Shore sedge (*Carex limosa*) 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.

# Poor Sedge

Carex magellanica ssp. irrigua



#### **Key Characters**

- Growth form: Stems solitary, erect, from long slender rhizomes.
- Leaves: Flat, grass-like, 3-9 per stem, often produced from sterile stems.
- Inflorescence: 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.

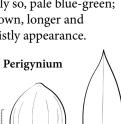














Growth form.

### Similar Species

Shore sedge (Carex limosa) has shorter, broader female scales that are about as long as the perigynia and do not give the spikes a bristly appearance.

# Few Flowered Sedge

Carex pauciflora

Wb02 Wb04 Wb10 Wb11

### **Key Characters**

- Growth form: Stems solitary, erect, slender, weak, from long slender rhizomes.
- Leaves: Narrow, erect, flat to channeled, 1-3 per stem.
- Inflorescence: 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, longpointed, yellowish-green; female scales lanceolate, straw-coloured and translucent, about as long and wide as the perigynia, sometimes shortawned, deciduous.









Perigynium

Inflorescence and growth form.

Perigynia.

### Similar Species

Few-seeded fen sedge (Carex 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





#### **Key Characters**

- Growth form: Stems solitary, erect, from long slender rhizomes.
- Leaves: Flat, grass-like, 3-5 per stem, often produced from sterile stems.
- Inflorescence: 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.









Perigynia.

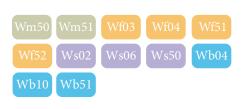
### **Similar Species**

Shore sedge (Carex limosa) has pale brownish female scales and is widespread throughout most of B.C.

Poor sedge (Carex magellanica) has longer, narrower female scales that are longer than the perigynia, giving the spikes a bristly appearance.

# Sitka Sedge

#### Carex sitchensis





### **Key Characters**

- **Growth form:** 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: 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.







Perigynium

Growth form. Inflorescence.

## Similar Species

Water sedge (*Carex aquatilis*) is rhizomatous and has narrower, usually blue-tinged leaves and short-stalked, erect lower female spikes.

Kellogg's sedge (*Carex 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 Flowered Sedge

Carex tenuiflora

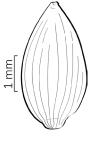
## Wb08 Wb11

#### **Key Characters**

- **Growth form:** Stems loosely tufted, slender, weak, erect, to 50 cm tall.
- Leaves: Slender, flattened, grass-like, to 2 mm wide.
- Inflorescence: 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 goldengreen, slightly inflated, veined; female scales green with a broad white margin, as long as the perigynia.







Perigynium



Perigynia.

#### **Similar Species**

**Two-seeded sedge** (*Carex disperma*) has well-separated clusters of 1-6 perigynia; lowest cluster subtended by a short bristle-like bract.

Norwegian sedge (*Carex 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.

# Beaked Sedge

#### Carex utriculata

#### **Key Characters**

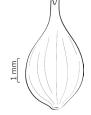
- Growth form: Stems erect, to 120 cm tall, rhizomatous, often forming extensive colonies.
- Leaves: Firm, coarse, flat, to 15 mm wide, margins rolled under.
- **Inflorescence:** Several robust, cylindrical female spikes in the axils of the upper leaves below 2-5 erect male spikes at the top of the stem; female spikes erect, unstalked, 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.







Perigynia.



Perigynium



#### Similar Species

Swollen beaked sedge (Carex 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 (Carex exsiccata) has more slender, ascending perigynia and shredded, fibrous lower leaf sheaths.

# Three-way Sedge Dulichium arundinaceum



#### **Key Characters**

- Growth form: Highly distinctive with erect, leafy stems up 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.
- Inflorescence: 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.



Growth form.



Growth form.



Inflorescence.



Inflorescence.

# Narrow-leaved Cotton Grass

Eriophorum angustifolium

Wb02	Wb04	Wb10	Wb13	Wb51
Wb52	Wb53	Wf09	Wf11	Wf12
Wf13	Wf50			



### **Key Characters**

- **Growth form:** 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.
- Inflorescence: 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.
- Flowes: 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.









Inflorescence with fruits.

### **Similar Species**

**Green-keeled cotton-grass** (*Eriophorum 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



#### **Key Characters**

- Growth form: 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: 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, rustytinged whitish bristles.







Stem.



Inflorescence.

### Similar Species

Scheuchzer's cotton-grass (Eriophorum scheuchzeri) lacks the rusty-brown tinge to the floral bristles and the scales lack whitish margins.

Short-anthered cotton-grass (Eriophorum brachyantherum) is similar to *E. scheuchzeri*, but is densely tufted.

# Hudson Bay Clubrush

Trichophorum alpinum



#### **Key Characters**

- Growth form: Stems erect, densely tufted, 3-angled, rough-textured, leafless, to 40 cm tall.
- Inflorescence: Small terminal spike subtended by a short, bristle-like stem extension that does not exceed the spike.
- Flowers: 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.









Achenes

### Similar Species

**Cotton-grasses** (*Eriophorum spp.*) with single spikes (e.g., Eriphorum chamissonis, Eriphorum scheuchzeri) lack a bristlelike stem extension at the base of the spike, and have larger, more compact heads of cottony bristles.

**Tufted clubrush** (*Trichophorum cespitosum*) has smooth, rounded stems and the tiny spikes lack long, cottony bristles.

# Tufted Clubrush

Trichophorum cespitosum

Wb51

Wb52

Wb53

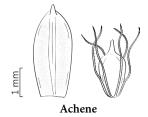
Wf11

Wf50

### **Key Characters**

- Growth form: Stems erect, densely tufted, rounded, smooth, leafless, to 45 cm tall.
- Flowers: 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.











Inflorescence.

Growth form. Growth for

### **Similar Species**

**Hudson Bay clubrush** (*Trichophorum alpinum*) has 3-angled stem and the flowers are subtended by long, white, cottony hairs that much exceed the scales.

# Common Spike Rush

Eleocharis palustris



#### **Key Characters**

- **Growth form:** 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.









Achene

Ø.



Growth form.

### **Similar Species**

This is the most common representative of a complex of 3-4 species in B.C. that are extremely similar and difficult to identify; the name *Eleocharis palustris* may be applied to this group as a whole.

Blunt spike-rush (Eleocharis obtusa) is a shorter (to 50 cm tall),

# Few Flowered Spike Rush

Eleocharis quinqueflora

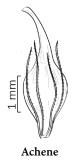


#### **Key Characters**

- Growth form: 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 (Eleocharis 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.

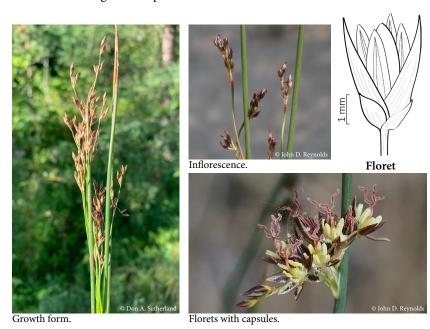
### Baltic Rush

**Juncus** balticus



#### **Key Characters**

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



#### **Similar Species**

**Common rush** (*Juncus effusus*) is a larger (to 120 cm tall), coarser species with densely tufted stems and often paler brown tepals.

Thread rush (*Juncus filiformis*) has more slender stems and the inflorescence is produced at the midpoint of the stem.

## White Beak Rush

Rhynchospora alba

Wf11 Wf53 Wb52

#### **Key Characters**

- Growth form: Highly distictinct with erect stems up to 50 cm tall, densely tufted, leafy.
- Leaves: Leaves fine, to 1 mm wide, grasslike, flat to keeled.
- **Inflorescence:** 1-3 per stem, both terminal and long-stalked from leaf axils, composed of clusters of several narrow, whitish (often becoming brown-tinged), 2-3 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.



Growth form.



Inflorescence.



Growth form.



Achenes.

### Hard Stemmed Bulrush

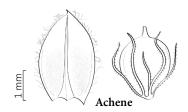
Schoenoplectus acutus



#### **Key Characters**

- Growth form: 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.
- ed in less.
- Inflorescence: 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.







Inflorescence.

Growth form.

#### **Similar Species**

**Soft-stemmed bulrush** (*Schoenoplectus tabernaemontani*) has reddish-brown spikelets, hairless surfaces on the scales, and soft-textured stems that are easily crushed between the fingers.

## Soft Stemmed Bulrush

Schoenoplectus tabernaemontani



#### **Key Characters**

- Growth form: 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: 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.

  Achene



1 mm



Growth form

#### Similar Species

**Great bulrush** (*Schoenoplectus acutus*) has greyish-brown spikelets, short-hairy scales, and firm stems that are not easily crushed between the fingers.

### Small Flowered Bulrush

Scirpus microcarpus



#### **Key Characters**

- **Growth form:** 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.
- Fruits: Achenes solitary seed-like, subtended by several short, hair-like bristles.



Growth form.



Inflorescence.



Inflorescence.



#### **Similar Species**

Wool-grasses (Scirpus cyperinus, Scirpus 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.

# Bluejoint Reedgrass

### Calamagrostis canadensis

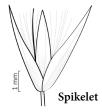
Wm01	Wm03	Wf04	Ws01	Ws02
Ws03	Ws04	Ws05	Ws06	Ws09
Fl05	Fl50			



- Growth form: 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, paniculate.
- Fruits: 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.







© John D. Revnolds

Growth form

Spikelets.

#### 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 (*Calamagrostis 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.

# Blue Wildrye

Elymus glaucus



Fl51

Fm06

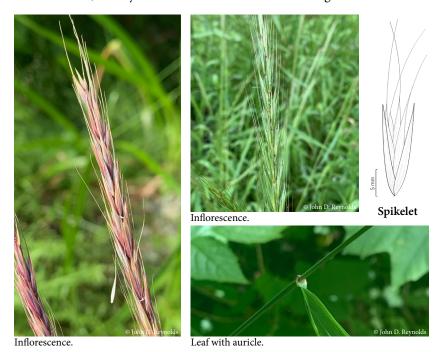
Fm51

#### **Key Characters**

- **Growth form:** 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: Tall, slender, erect to slightly nodding spike 5-21 cm long.
- Fruits: Spikelets paired at spike nodes, unstalked, 2-4 flowered; glumes narrow, lanceolate, long-pointed, often short-awned; lemmas narrow, lanceolate, usually extended into an awn 1-25 mm long.



#### **Similar Species**

**Quackgrass** (*Elymus 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.

# Foxtail Barley

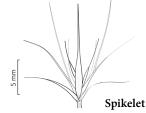
Hordeum jubatum



#### **Key Characters**

- **Growth form:** Stems erect, densely tufted, often soft-hairy, to 50 cm tall; plants usuall with an overall blue-grey appearance.
- Leaves: Flat, to 5 mm wide, short-hairy at base of the blade; ligules short and flat.
- **Inflorescence:** Drooping, densely flowered spike to 10 cm long, purpletinged; disarticulating at seed dispersal.
- Fruits: Glumes and lemmas narrow and extended into long (to 9 cm long), stiff, roughened awns.







Inflorescence.

#### **Similar Species**

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

# Kentucky Bluegrass

Poa pratensis ssp. agassizensis

#### **Key Characters**

- **Growth form:** 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. Fruits: Spikelets narrowly egg-shaped, pointed, flattened, 3-5 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.









Growth form. Inflorescence.

#### 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.

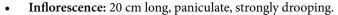
151

# Mountain Hairgrass

Vahlodea atropurpurea

#### **Key Characters**

- Growth form: Stems erect, to 80 cm tall, loosely tufted.
- Leaves: Flat with folded tips, lax, to 8.5 mm wide, often soft-hairy; lower sheaths stiffhairy; ligules round-tipped and fringed with fine hairs.



Fruits: 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.







Spikelets.

Inflorescence.

### **Similar Species**

Inflorescence.

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

### Common Cattail

Typha latifolia



#### **Key Characters**

- Growth form: Emergent, erect, unbranched stems up to 2.5 m inheight.
- Leaves: Long, erect, flattened (to 3 cm wide), grass-like, strongly sheathing the stem, often exceeding theflower spike.
- Flowers: Terminal, 2-parted spikes with the portions not separated. Upper half of spike bears fluffy, yellow-brown maleflowers 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.





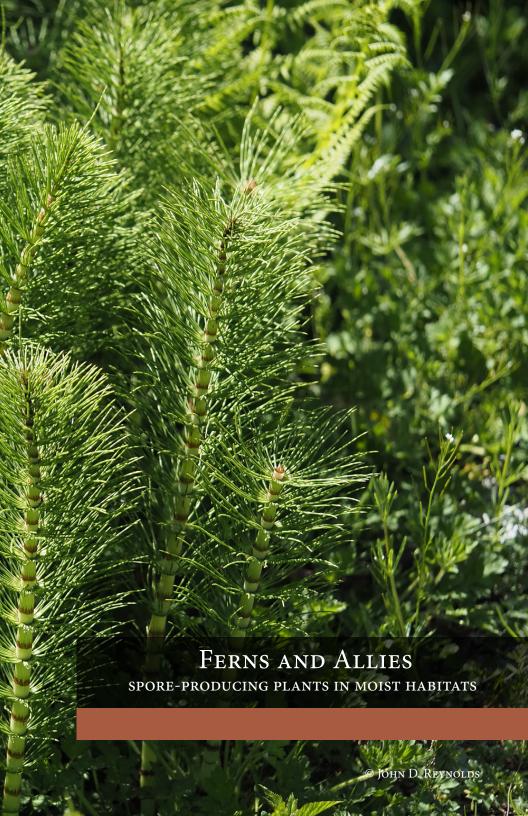


Growth form.

#### **Similar Species**

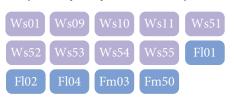
Narrow-leaved cattail (*T. angustifolia*) is a problematic invasive species in SW BC; it has narrower leaves (0.5-1.2 cm wide) and the male portion of the flowering spike is separated from the female portion by short (1-8 cm) length of bare stem.





# Lady Fern

Athyrium filix-femina var. cyclosorum



#### **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.



Growth form.







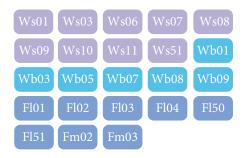
Growth form.

#### 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.

### Common Horsetail

#### Equisetum arvense





#### **Key Characters**

• Growth form: 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, 10-12 ridged, with whorls of slender, jointed branches; first internode of branches longer than the adjacent stem sheath; stem sheaths with 10-12 blackish teeth.







Growth form.

Nodes.

Strobil

### **Similar Species**

Marsh horsetail (*Equisetum 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** (*Equisetum pratense*) has finer branches with the first internode being longer than the adjacent stem sheath; sheath teeth with whitish margins.

## Swamp Horsetail

Equisetum fluviatile

#### **Key Characters**

**Growth form:** 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 10-30 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.



Nodes.





Growth form.



Strobili.

#### Similar Species

Scouring-rush (Equisetum hyemale) 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 (Equisetum palustre) has a more slender, deeply 5-10 ridged stem with a much smaller central cavity; stem sheaths with 5-10 lanceolate, white-margined teeth.

# Scouring Rush

Equisetum hyemale ssp. affine



Fm01

#### **Key Characters**

• Growth form: Stems erect, to 120 cm tall, coarse. Stems 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.







Nodes.



Strobilus.

#### **Similar Species**

**Northern scouring-rush** (*Equisetum 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** (*Equisetum 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



#### **Key Characters**

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





Nodes.



#### Similar Species

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



## Oak Ferns

Gymnocarpium dryopteris



### **Key Characters**

Leaves: Small leaves (to 24 cm long) often forming carpets of individual leaves. Longstalked, deciduous, thin-textured. 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.







Growth form.

Sori.

#### **Similar Species**

Oak ferns as a group are distinctive in B.C.; the two component species of this complex (Gymnocarpium disjunctum, Gymnocarpium dryopteris) are extremely similar and occupy similar habitats where they occur.

## Ostrich Fern

Matteuccia struthiopteris var. pensylvanica



#### **Key Characters**

 Growth Form: Leaves clustered into vaseshaped clumps with fertile leaves in the center, sterile leaves surrounding. Sori produced in 1 row on underside of strongly recurved margins of fertile pinnae.



Leaves: Two kinds. 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.





eaves



Growth form.

Coni

#### Similar Species

**Lady fern** (*Athyrium filix-femina*) does not have separate hardened, persistent fertile leaves; the leaves are twice-compound and are broadest around the midpoint.

## Sword Fern

Polystichum munitum



#### **Key Characters**

Leaves: Large leaves (to 150 cm long), clumped and very short stalked, spreading from a central point. Evergreen, leathery, 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. Sori discrete, rounded, rusty-brown.







Growth form.

#### **Similar Species**

**Deer fern** (*Struthiopteris spicant*) has separate fertile and sterile blades; the pinnae are unstalked and continuous with the midrib, and the leaf stalks are not papery-scaly.

### Deer Fern

Struthiopteris spicant





#### **Key Characters**

- Growth form: Leaves of two kinds, with sterile leaves surrounding the fertile leaves.
   Sori continuous in a line on underside of fertile leaf pinnae.
- 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.





Growth form.



Underside of leaf.

#### **Similar Species**

**Sword fern** (*Polystichum munitum*) 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.

### APPENDIX 1

#### WETLAND ASSOCIATED SITES

Wb01 Black spruce - Creeping-snowberry - Peat-moss

Wb02 Lodgepole pine – Bog rosemary – Peat-moss

Wb03 Black spruce - Lingonberry - Peat-moss

Wb04 Western hemlock – Cloudberry – 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

Wb12 Scheuchzeria - Peat-moss

Wb13 Shore sedge - Buckbean - Peat-moss

Wb50 Labrador tea - Bog-laurel - Peat-moss

Wb51 Shore pine – Black crowberry – Tough peat-moss

Wb52 Common juniper – Tufted clubrush – Hoary rock-moss

Wb53 Shore pine - Yellow-cedar - Tufted clubrush

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

Wf06 Slender sedge - Buckbean

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

Wf12 Narrow-leaved cotton-grass - Marsh-marigold

Wf13 Narrow-leaved cotton-grass - Shore sedge

Wf50 Narrow-leaved cotton-grass - Peat-moss

Wf51 Sitka sedge - Peat-moss

Wf52 Sweet gale - Sitka sedge

Wf53 Slender sedge - White beak-rush

Wm01 Beaked sedge - Water sedge

Wm02 Swamp horsetail - Beaked sedge

Wm03 Awned sedge

Wm04 Common spike-rush

Wm05 Cattail

Wm06 Great bulrush

Wm07 Baltic rush

Wm08 Sitka sedge - Hemlock-parsley

Wm09 Three-way sedge

Ws01 Mountain alder - Skunk cabbage - Lady fern

Ws02 Mountain alder - Pink spirea - Sitka sedge

Ws03 Bebb's willow - Bluejoint

Ws04 Drummond's willow - Beaked sedge

Ws05 MacCalla's willow - Beaked sedge

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

Ws12 Pink spirea – Sitka sedge

Ws13 Sitka willow - Pacific willow - Skunk cabbage

Ws14 Red alder - Skunk cabbage

Ws15 Western redcedar – Sword fern – Skunk cabbage

Ws43 Western redcedar - Western hemlock - Skunk cabbage

Ws55 Yellow-cedar – Mountain hemlock – Skunk cabbage

Fl01 Mountain alder - Common horsetail

Fl02 Mountain alder – Red-osier dogwood – Lady fern

Fl03 Pacific willow - Red-osier dogwood - Horsetail

Fl04 Sitka willow – Red-osier dogwood – Horsetail

Fl05 Drummond's willow – Bluejoint

Fl06 Sandbar willow

Fl07 Water birch - Rose

Fl09 Sitka willow - False lily-of-the-valley

Fl13 Red alder - Salmonberry - Horsetail

Fm01 Cottonwood - Snowberry - Rose

Fm02 Cottonwood - Spruce - Red-osier dogwood

Fm03 Cottonwood - Subalpine fir - Devil's club

Fm50 Cottonwood - Red alder - Salmonberry

### APPENDIX 2

#### PHOTO CONTRIBUTORS

Abies amabilis John D. Reynolds

Abies lasiocarpa Ryan Durand, John D. Reynolds
Acer glabrum Ryan Durand, John D. Reynolds

Acer macrophyllum Ryan Durand, John D. Reynolds, Kendall

McLaughlin, Trevor Van Loon

Actaea rubra John D. Reynolds

Alnus incana John D. Reynolds, Nadia Pagliaro

Alnus rubra Ryan Durand, John D. Reynolds, Cassie

Friesen, Trevor Van Loon

Andromeda polifolia John D. Reynolds, Rebekah Ingram

Athyrium filix-femina Ryan Durand, Cassie Friesen, John D.

Reynolds

Betula glandulosa Syd Cannings, John D. Reynolds, Birch

Matkowski

Betula occidentalis Finn McGhee, Trevor Van Loon

Calamagrostis canadensis Don A. Sutherland, Colin Jones, John D.

Reynolds

Callitropsis nootkatensis John D. Reynolds, Ryan Durand, Finn

McGhee

Caltha leptosepala John D. Reynolds, Trevor Van Loon
Carex anthoxanthea Jamie Fenneman, Finn McGhee
Carex aquatilis John D. Reynolds, Trevor Van Loon

Carex atherodes Ryan Durand
Carex chordorrhiza Trevor Van Loon

Carex dispermaSyd Cannings, Trevor Van LoonCarex exsiccataFinn McGhee, Trevor Van LoonCarex lasiocarpaColin Jones, Trevor Van Loon

Carex limosa David Greenberger, Trevor Van Loon

Carex livida Kyla Rushton, Trevor Van Loon

Carex magellanica ssp. irrigua John D. Reynolds, Jason Straka, Trevor

Van Loon

Carex pauciflora John D. Reynolds, Trevor Van Loon

Carex pluriflora Abe Lloyd

Carex sitchensis Abe Lloyd, Trevor Van Loon

Carex tenuiflora Jeremy Collision, Jamie Fenneman, Finn

McGhee

Carex utriculata Bruce Bennett, Don A. Sutherland,

Trevor Van Loon

Cicuta douglasii Rebekah Ingram, John D. Reynolds

Circaea alpina Don A. Sutherland, John D. Reynolds,

Trevor Van Loon

Comarum palustre Syd Cannings, John D. Reynolds, Colin

Jones

Coptis trifolia John D. Reynolds

Cornus sericea John D. Reynolds, Colin Jones

Drosera anglica Rebekah Ingram, Trevor Van Loon

Drosera rotundifolia John D. Reynolds, Jason Straka
Dulichium arundinaceum John D. Reynolds, Finn McGhee

Eleocharis palustris Colin Jones, John D. Reynolds

Eleocharis quinqueflora Don A. Sutherland. John D. Reynolds
Elliottia pyroliflora John D. Reynolds, Trevor Van Loon

Elymus glaucus John D. Reynolds

Empetrum nigrum Syd Cannings, John D. Reynolds, Colin

Jones

Equisetum arvense Kendall McLaughlin, Trevor Van Loon

Equisetum fluviatile John D. Reynolds, Ryan Durand
Equisetum hyemale ssp. affine Wasyl Bakowsky, John D. Reynolds

Equisetum telmateia John D. Reynolds

Eriophorum angustifolium John D. Reynolds, Jamie Fenneman

Eriophorum chamissonis Ryan Durand, Rebekah Ingram

Galium trifidum ssp. trifidum John D. Reynolds, Trevor Van Loon

Gaultheria hispidula Ryan Durand, Nadia Pagliaro

Gaultheria shallon Neal Foord, Kendall McLaughlin, Lynda

Stevens

*Gymnocarpium dryopteris* John D. Reynolds

Heracleum maximum John D. Reynolds, Jamie Long, Trevor

Van Loon

Hordeum jubatum Syd Cannings, Ryan Durand

Hypericum anagalloides John D. Reynolds, Trevor Van Loon Juncus balticus Don A. Sutherland, John D. Reynolds

Juniperus communis Ryan Durand, John D. Reynolds

Kalmia microphylla John D. Reynolds

Larix laricina John D. Reynolds, Rebekah Ingram, Birch

Matkowski

Leptarrhena pyrolifolia John D. Reynolds, Ryan Durand, Trevor

Van Loon

Lonicera John D. Reynolds, Kendall McLaughlin

involucrata var. involucrata

Lysichiton americanus John D. Reynolds

Maianthemum dilatatum John D. Reynolds, Trevor Van Loon

Matteuccia John D. Reynolds, Ryan Durand, Colin struthiopteris var. pensylvanica

Iones

Menyanthes trifoliata Syd Cannings, Ryan Durand, Alana

Higginson, Birch Matkowski

John D. Reynolds, Jamie Long Myrica gale

Nephrophyllidium crista-galli John D. Reynolds, Lynda Stevens

Nuphar polysepala Kendall McLaughlin, Trevor Van Loon Oenanthe sarmentosa John D. Reynolds, Trevor Van Loon

Oplopanax horridus Neal Foord, Courtney Geuze, Jamie Long,

Kendall McLaughlin

Osmorhiza berteroi John D. Reynolds, Trevor Van Loon

Persicaria amphibia Birch Matkowski Picea x albertiana Ryan Durand

Picea mariana Ryan Durand, Rebekah Ingram

Picea sitchensis John D. Reynolds

Pinus contorta var. contorta John D. Reynolds, Trevor Van Loon

Pinus contorta var. latifolia Syd Cannings, Ryan Durand

Platanthera dilatata John D. Reynolds, Trevor Van Loon

Poa pratensis John D. Reynolds

Polystichum munitum John D. Reynolds, Cassie Friesen Populus trichocarpa John D. Reynolds

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Potentilla anserina ssp. Ryan Durand, Trevor Van Loon, Kendall

anserina McLaughlin

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Van Loon

Rhododendron groenlandicum Ryan Durand, Alana Higginson, Jamie

Long, Birch Matkowski

Rhynchospora alba Ryan Durand, Finn McGhee, Trevor Van

Loon

Ribes bracteosum John D. Reynolds, Trevor Van Loon

Rosa acicularis ssp. sayi Syd Cannings, Jamie Fenneman, Birch

Matkowski

Rosa nutkana John D. Reynolds, Jamie Long

Rosa woodsii John D. Reynolds

Rubus chamaemorus Ryan Durand, Rebekah Ingram

Rubus parviflorus Kendall McLaughlin, Lynda Stevens,

Matthew Syvenky

Rubus spectabilis Trevor Van Loon, John D. Reynolds

Salix barclayi Bruce Bennett, John D. Reynolds, Ryan

Durand

Salix bebbiana Don A. Sutherland, Kendall McLaughlin

Salix drummondiana Jamie Fenneman

Salix exigua John D. Reynolds, Trevor Van Loon

Salix lasiandra Don A. Sutherland, Scott Bailey, Fen Levy

Salix maccalliana Ryan Durand

Salix myrtillifolia Bruce Bennett, Syd Cannings
Salix pedicellaris Neal Foord, John D. Reynolds

Salix sitchensis Trevor Van Loon, Finn McGhee, Kendall

McLaughlin

Sambucus racemosa var.

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Sanguisorba stipulata John D. Reynolds, Liz Wass

Scheuchzeria palustris Syd Cannings, Ryan Durand, Jamie

Fenneman

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Schoenoplectus John D. Reynolds, Kendall McLaughlin

tabernaemontani

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Fenneman

Senecio triangularis Colin Jones, John D. Reynolds

Sium suave Trevor Van Loon

Spiraea douglasii John D. Reynolds, Kendall McLaughlin

Stachys cooleyaeRyan Durand, Kendall McLaughlinStreptopus amplexifoliusJohn D. Reynolds, Trevor Van Loon

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Ryan Durand

Struthiopteris spicant Ryan Durand, Kyla Rushton

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Thuja plicata John D. Reynolds, Nikko Ippolito

Triantha glutinosa John D. Reynolds, Jason Straka, Trevor

Van Loon,

Trichophorum alpinum Trevor Van Loon

Trichophorum cespitosum John D. Reynolds, Ryan Durand
Triglochin maritima John D. Reynolds, Trevor Van Loon
Tsuga heterophylla John D. Reynolds, Birch Matkowski,

Trevor Van Loon

Tsuga mertensiana John D. Reynolds
Typha latifolia Kendall McLaughlin

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Utricularia vulgaris ssp. Don A. Sutherland, John D. Reynolds,

macrorhiza Ryan Durand

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LaBounty, Abe Lloyd

Vaccinium ovalifolium Trevor Van Loon, John D. Reynolds

Vaccinium oxycoccos John D. Reynolds, Ryan Durand, Colin

Jones

Vaccinium uliginosum Don A. Sutherland, Syd Canning, John D.

Reynolds, Birch Matkowski,

Vaccinium vitis-idaea Syd Cannings, Birch Matkowski

Vahlodea atropurpurea John D. Reynolds, Finn McGhee, Trevor

Van Loon

Valeriana sitchensis Trevor Van Loon Veratrum viride Trevor Van Loon

Viburnum edule Syd Cannings, John D. Reynolds, Trevor

Van Loon

Viola palustris John D. Reynolds, Trevor Van Loon



#### ABOUT THE B.C. WILDLIFE FEDERATION

The BCWF is British Columbia's leading conservation organization, representing more than 43,000 members—including conservationists, biologists, hunters, and anglers. For over 60 years, the BCWF has been committed to protecting, enhancing, and promoting the wise use of fish, wildlife, and habitat across the province for the benefit of present and future generations.

As a recognized leader in wetland restoration and education, the BCWF's Conservation Stewardship Department—commonly referred to as the Watershed Team—works in partnership with First Nations, government agencies, environmental organizations, academic institutions, and local communities to advance watershed restoration, monitoring, and outreach efforts.

The Conservation Stewardship Department's education programs foster grassroots, community-driven conservation and support watershed health across B.C. Through initiatives such as the Wetlands Education Program (WEP) and the Fish Habitat Restoration and Education Program (FHREP), the BCWF delivers courses, workshops, and outreach events that equip individuals and communities with the knowledge and tools needed to steward their local environments.

In addition to education and on-the-ground restoration, the Watershed Team is actively developing innovative tools to support science-based conservation and land-use decision-making. These tools help evaluate wetland functions, guide restoration planning, and improve mapping and classification efforts.

This guidebook builds on the BCWF's long-standing expertise and commitment to watershed conservation, providing a trusted wetland plant identification resource for people across the province.

For more information, visit:







www.bcwfwatershedteam.ca

#### Your Guide to B.C.'s Wetland Flora

This field guide from the B.C. Wildlife Federation supports the identification of wetland plants across British Columbia. Designed for practical use in the field, it supports stewardship, wetland identification, and a deeper connection to wetland ecosystems.

#### EACH SPECIES ACCOUNT INCLUDES:

- Colour-coded headers indicating growth form
  - English and Latin names
- Photographs highlighting key characteristics
  - A GENERALIZED DISTRIBUTION MAP
  - Common wetland site associations
    - KEY IDENTIFICATION FEATURES
    - Comparisons to similar species

Offered as a free resource to advance conservation and education, this guide was made possible through the efforts of BCWF staff, partners, and community contributors. If you find it valuable, please consider donating to support future editions and ongoing conservation work.



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