What Tree is This?  🌳

A Dichotomous Key
for
Coniferous and Deciduous Trees of the Pacific Coast of British Columbia

Compiled by:

Information and photos selected from:
Dichotomous Key
Coniferous and Deciduous Trees of the Pacific Coast of British Columbia

1. a. Leaves are needle-like or scale-like, evergreen; seeds are usually in cones (they are conifers) …… 2
  2. a. Leaves are scale-like, concealing the twigs ................................................................. 3
  3. a. Leaf-covered twigs are flattened; cones are oval-shaped ...................... Western redcedar
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  9. a. Needles are in a definite 2-ranked arrangement; needles are 3-4 cm long; cones are light green ............................................................... Grand fir
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  11. a. Needles are 4-sided, stiff, and sharp-pointed ....................... Sitka spruce
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  13. a. Needles are flat, in 2 rows; top of needle is green; lower surface has 2 white rows; cones are 2-3 cm long ...................... Western hemlock
  13. b. Needles curve down, crowded on all sides of twigs; whitish rows are on both sides; cones are 3-8 cm long ...................... Mountain hemlock

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1.b. Leaves are broad and (except for Arbutus) annually fall from the tree (they are deciduous); seeds are enclosed in a fruit ........................................................................................................ 14

14.a. Bark is peeling .................................................................................................. 15

15.a. Leaves are evergreen, leathery, and egg-shaped; red bark .........................Arbutus
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....................................................................................................................... Paper birch

14.b. Bark is not peeling .................................................................................................. 16

16.a. Fruits are apple-like; trees sometimes have thorns........................................... 17

17.a. Thorns are abundant and smooth; flowers are stinky and grow up to 1cm across; fruits are black-purple and are about 1cm long; shrubs to 7m tall ........Hawthorn (a shrub)
17.b. Thorns are rare; flowers smell good and grow up to 2cm across; fruits (crab apples) are yellow-red and about 1.6cm long; trees to 12m in height ...........Pacific crab apple

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(southern Vancouver Island) .................................................................................. Oregon ash
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19.a. Leaves are lobed (have sections) ................................................................. 20

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21.b. Leaves alternate, distinctly toothed (rough, or cerated) edges) ............ 22

22.a. Fruit is a cone-like catkin; leaves have a double-toothed edge
......................................................................................................................... Red alder
22.b. Fruit are not catkins; leaves have single-toothed edges ............ 23

23.a. Flowers are in catkins; fruits are dry capsules with hairy, tufted seeds; bark is deeply furrowed ............ Black cottonwood
23.b. Flowers are showy and fragrant; fruits are juicy cherries; bark is smooth to lightly roughened ............ Bitter cherry
### Common Name
Western redcedar

### Scientific Name
*Thuja plicata*

### General
- **Size**: Large tree, up to 60 m tall
- **Branches**: Drooping
- **Bark**: Grey to reddish brown, stringy, tearing off in strips, pleasantly aromatic wood

### Leaves
- Scale-like, looks like a flattened braid or overlapping shingles

### Cones
- Egg-shaped seed cones 1 cm in size
- Immature cones are green

### Ecology
- Lower to medium elevations; moist to wet soils; usually shaded forests
- Often found growing in forests with ferns, salal, and hemlock

### Notes
- BC’s official provincial tree and is called ‘the tree of life’ because of its spiritual, healing, and practical importance
- Coastal people used all parts of this tree
- The wood was used for dugout canoes, house planks, bentwood boxes, clothing, totem poles, fishing floats, and many tools such as arrow shafts, masks, combs, spear shafts and paddles
- The inner bark made rope, clothing, hats, and baskets
- The long branches were twisted into rope and baskets
- Western redcedar was also used for many medicines
- The power of the redcedar is said to be so strong that a person could receive strength by standing with their back against the tree
- The cedar wood is resistant to decay and insect damage; as a result, the wood of large, fallen trees remains sound for over 100 years and may be used to make roof shingles
<table>
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<th><strong>Common Names</strong></th>
<th>Yellow-cedar, Yellow-cypress, Alaska-cedar</th>
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<tr>
<td><strong>Scientific Name</strong></td>
<td><em>Chamaecyparis nootkatensis</em></td>
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</tbody>
</table>
| **General** | • **Size**: Grows to 50 m tall  
• **Branches**: Tend to hang vertically and appear limp; prickly  
• **Bark**: Greyish-brown in vertical strips; immature bark is thin and scaly |
| **Leaves** | • Scale-like, bluish-green, sharp-pointed tips  
• Leaf-covered twigs appear square, not flat |
| **Cones** | • Immature cones look like round, bumpy light-green ‘berries’; mature cones are brown and woody with 4-6 scales |
| **Ecology** | • Moist to wet sites; rocky areas, avalanche chutes, ridge tops, boggy forests  
• Most often found at high elevations growing with amabilis fir and mountain hemlock |
| **Notes** | • Crushed leaves have a mildewy smell.  
• Inner bark is yellowish and smells like raw potatoes  
• The oldest tree in the region, commonly 1000-1500 years old  
• The yellow-cedar wood was used the wood to make paddles, masks, dishes, and digging sticks  
• The roots were used to make bows  
• A coastal story tells how three beautiful sisters picking berries were scared away by Raven, who was imitating the call of an owl. The girls ran up the mountain until they tired, and changed themselves into yellow-cedars. The drooping branches and strips of bark of the yellow-cedar are the long, hanging, beautiful hair of the sisters. |
Common Name: Western white pine
Scientific Name: *Pinus monticola*

**General**
- **Size:** Medium-sized tree (up to 40 m tall)
- **Branches:** Symmetrical on either side
- **Bark:** Young trees are smooth with resin blisters; mature trees are scaly with deep grooves, dark grey to black in colour

**Leaves**
- Slender and flexible (5-10 cm long) needles in bundles of 5
- Light bluish-green with whitish tinge

**Cones**
- Large cylindrical cones (10-25 cm long) on a 2 cm stalk
- Mature cones are woody with prickly-free scales

**Ecology**
- Low to high elevations, from moist valleys to dry slopes

**Notes**
- The western white pine was used for many medicinal purposes
- Its bark was brewed to make a tea used to treat stomach disorders and tuberculosis, and was applied to open wounds
- The pitch was used to treat stomach aches, coughs, and sores, and was also thought to increase fertility
- Pitch was also used as waterproofing and cleansing agents, and the bark was used to make baskets and small canoes
- This tree is named because of the colour of its wood
- The wood is prized for carving because of its fine grain and uniform texture
Common Name  Shore pine
Scientific Name  *Pinus contorta* var. *contorta*

**General**
- **Size**: Short (up to 20 m tall), often with crooked trunk; stunted and twisted at higher elevations
- **Branches**: Often twisted branches
- **Bark**: Thick, furrowed or scaly, dark brown or blackish in colour

**Leaves**
- Pairs of sharp, dark green needles, often twisted or curved upwards

**Cones**
- Seed cones may vary, from short and spherical to egg-shaped
- Cones are 3-5 cm long and have a sharp prickle at tip

**Ecology**
- At low to middle elevations and at subalpine areas on the north coast
- Highly adaptable to many conditions: found from dunes to bogs to rocky hilltops and exposed outer-coast shorelines
- Shore pine is very tolerant of salt spray and is often found along the coastline.

**Notes**
- Shore pine roots were used to make rope
- Broken limbs were splinted with the bark of the shore pine
- The pitch from this tree was used as a waterproofing agent, a glue, and a protective coating for fishing nets
**Common Names**  Subalpine fir, Alpine fir

**Scientific Name**  *Abies lasiocarpa*

**General**
- **Size**: Usually between 20-35 m tall
- **Branches**: Short, stiff, and thick
- **Bark**: Young trees have thin, grey, smooth, with resin blisters; mature trees have bark with large scales

**Leaves**
- Blunt, upward-turning, bluish-green needles
- Needles are thickest in the centre and are often notched
- 1 white band on upper surface and 2 white bands on lower surface

**Cones**
- Purple seed cones are large (6-10 cm long) and cylindrical, and grow upright near the top of the tree

**Ecology**
- Usually found at high elevations, but also near sea level on the north coast
- Subalpine fir grow best in areas with cold winters, cool summers, and deep snowpack

**Notes**
- The pitch and bark were very important for medicinal purposes.
- Branches were used as bedding, floor coverings, and incense
- Inner bark was eaten raw
Common Name: Grand fir
Scientific Name: *Abies grandis*

**General**
- **Size**: Tall (to 80 m) and straight
- **Branches**: Flat sprays that show the upper and lower surfaces of the twigs
- **Bark**: Greyish-brown in colour; young trees have bark that is smooth with resin blisters; bark becomes furrowed and scaly as it matures

**Leaves**
- Flat needles with rounded and notched tips, 2-4 cm long
- Upper surface is dark-green and grooved; lower surface has two white lines of stomata
- Needles are arranged in two horizontal rows

**Cones**
- Barrel-shaped, erect cones, 5-10 cm long, near the top of the tree
- Cones are yellowish-green to green in colour

**Ecology**
- Grand firs usually grow in dry areas from low to middle elevations
- On the coast, grand firs are often found in forests with western redcedar, flowering dogwood, salal, and Oregon-grape
- The thin bark makes grand fir susceptible to fire

**Notes**
- The wood from grand firs was used to make canoes and fishing hooks, and burned as fuel
- Dye made from the bark was used in basket making
- The pitch was rubbed into paddles to finish them; grand fir pitch was also used to make a good grip on bows
- Pitch and oil were combined to make a perfume and rubbed onto the scalp to prevent baldness
- Branches were woven into headdresses and clothing, and used as incense and scrubbers for ritualistic cleansing
- Needles were boiled to make a tea to treat colds
**Common Names**  
Amabilis fir, Pacific silver fir

**Scientific Name**  
*Abies amabilis*

**General**
- **Size**: Tall (to 55 m tall), straight; dense cylindrical shape
- **Branches**: Flattened, spray-like; on the bottom of the branch, needles spread horizontally; on the upper side, needles lie flat and point forward
- **Bark**: Smooth with resin blisters, becoming whitish-grey and scaly as the tree matures

**Leaves**
- Flat needles with notched tip
- Upper side of needles are dark shiny green and grooved
- Under side of needles are ridged with white lines of stomata

**Cones**
- Erect, barrel-shaped, purple cones 8-12 cm long

**Ecology**
- In the south, amabilis firs are usually found at high elevations (above 1000 m); at northern latitudes these trees may be found at sea level
- Frequently found in moist forests with deep, well-drained soil
- Often lives in mixed forests with hemlocks, yellow-cedar and redcedar
- Very shade-tolerant and smaller trees may be found growing near black huckleberries and mountain-heathers

**Notes**
- The branches were often used as bedding and floor coverings because of their pleasant fragrance
- Pitch was chewed for its flavour
- The wood is soft and brittle, so it was not often used for building, but rather, as fuel

- ‘Silver fir’ describes the colour of the underside of the needles, and the name ‘amabilis’ means lovely – a fitting description for this species!
Common Name  Douglas-fir

Scientific Name  *Pseudotsuga menziesii*

**General**
- **Size:** Large – grows up to 90 m tall
- **Branches:** Erect crown; spreading to drooping, with sharply pointed buds
- **Bark:** Mature trees have very thick, ridged, fluted, rough, dark brown bark

**Leaves**
- Flat, yellowish-green needles 2-3 cm long
- Needles have pointed tips with 1 groove on upper side and 2 white bands on underside; spirally-arranged, and appear to stand out on the twig

**Cones**
- Cones are 5 to 11 cm long and turn from green to grey as they mature
- Between each scale of cone, long three-pronged bracts are easily seen

**Ecology**
- These trees live in diverse habitats, from extremely dry, low elevations to moist valley bottoms
- Douglas-fir grow in forests with western redcedar, hemlock, and grand fir, often with salal, huckleberries, Oregon-grape, and sword fern beneath

**Notes**
- Wood was used to make utensils, caskets, and spear handles; the pitch was used in construction (to seal joints of tools and caulk canoes) and as a medicinal salve for wounds
- Once when a forest fire was approaching, Douglas-fir was scared because his friends were fleeing the fire and he was unable to leave. His friend, Mouse, promised to stay with Douglas-fir if the tree would protect him. Mouse climbed up as high as possible to hide in the tree’s cones. When the fire came, Douglas-fir’s thick bark protected him from the heat, but the smoke killed Mouse inside the cone. To this day, Mouse’s tail and hind feet are visible as he hides in the scales of a Douglas-fir cone.
- Named after explorer and botanist David Douglas
- Douglas-fir is not a true fir, which is why its name is hyphenated
- The Latin name comes from *pseudo* ‘false’ and *tsuga* ‘hemlock’
**Common Name**  
Sitka spruce

**Scientific Name**  
*Picea sitchensis*

**General**
- **Size**: Large, mature trees up to 70 m tall and 2 m across
- **Branches**: Main branches are usually horizontal, smaller branches are drooping
- **Bark**: Thin, reddish-brown to grey-brown, scaly

**Leaves**
- Stiff, sharp, yellowish-green or bluish-green, short needles (1-3 cm long)
- Square-shaped needles with two white bands running along the upper surface and two narrower bands on the lower surface
- Spirally-arranged along twig

**Cones**
- Cylindrical, reddish-brown cones, 5-8 cm long, hanging from crown
- Thin, wavy, irregularly toothed scales

**Ecology**
- Usually grows along the coast at low to middle elevations with western hemlock, western redcedar, and yellow-cedar in forests with mosses, horsetails, blueberries and ferns

**Notes**
- A quick way to identify Sitka spruce is to grab a branch in your hand: it hurts! Spiky, Sharp, Square needles are usually Spruce
- Coastal peoples ate the young shoots as a good source of vitamin C, and the inner bark was used as a laxative
- Pitch was chewed for flavour, and used to treat skin irritations, sexually transmitted diseases, and toothaches
- Roots were used to make watertight baskets and hats
**Common Names**  Western yew, Pacific yew  
**Scientific Name**  *Taxus brevifolia*  

**General**  
- **Size**: shrub to small tree (2-15 m tall), often with twisted trunk that may become very wide at the base  
- **Branches**: drooping  
- **Bark**: reddish, papery, scaly, shreddy  

**Leaves**  
- Flat, 2-3 cm long, with distinctive pointed tip  
- Upper surface is dull green  
- Appear to grow in two rows of flat sprays  

**Cones**  
- Cones are not usually noticeable, but it produces a bright red cup-shaped fruit containing a single seed  

**Ecology**  
- Grows at low to middle elevations in southern BC  
- Moist, mature forests with Douglas-fir and western hemlock  
- Many species of birds and small rodents eat the fruit  

**Notes**  
- The bark contains taxol, which is a promising anti-cancer treatment  
- The wood of the yew is heavy and durable, and was used for wood carving as well as tool making including bows, spears, needles, knives, paddles, snowshoe frames, and bark scrapers  
- Dried needles were smoked as a type of tobacco  
- The fruit are poisonous to humans and were thought to make women sterile
Common Name: Western hemlock

Scientific Name: *Tsuga heterophylla*

**General**
- **Size**: tall, up to 60 m tall
- **Branches**: drooping crown; down-sweeping branches and delicate, feathery flat foliage
- **Bark**: rough, reddish-brown, scaly; thick and furrowed in mature trees

**Leaves**
- Short, blunt, flat, and needles of various lengths (5-20 mm long)
- Yellowish-green on top; whitish with 2 fine white bands on underside

**Cones**
- Small (2 cm), oblong cones
- Purplish cones, turning light brown with age

**Ecology**
- Low to middle elevations, requiring soil rich with nutrients
- Shade-tolerant and is often found in moist, mature forests
- Western hemlock has the densest canopy of any tree species on the coast

**Notes**
- Hemlock wood is easy to work with, and was used to create implements such as spoons, fishing hooks, combs, and giant feast dishes
- Roots were used to strengthen fishing lines
- A hemlock bark solution was used to tan hides and waterproof baskets
- Dyes made from hemlock bark were used to colour wool, camouflage fishing nets, decorate baskets and paddles, remove facial hair, and rouge cheeks
- Hemlock boughs were used as bedding, fish drying racks, clothing, medicinal tea, and needles were chewed as a hunger-suppressant
- The highest growth rate ever recorded in the temperate zone was measured in a western hemlock forest (36 tonnes/ha/year)
- What’s in a name? *Tsuga* is Japanese for ‘tree’ and ‘mother’ and *heterophylla* is Greek for ‘different leaves’
Common Name  Mountain hemlock
Scientific Name  *Tsuga mertensiana*

General
- **Size:** up to 40 m tall
- **Branches:** only slightly drooping crown; branches droop or spread but the branches tend to sweep up at the tips
- **Bark:** dark reddish-brown; deeply furrowed and ridged

Leaves
- Uniformly-sized, glossy, yellow- to bluish-green, 1-3 cm long
- Branches are densely covered with needles

Cones
- Purplish-brown cones (3-8 cm long) become brown with maturity

Ecology
- Usually grows at middle to high elevations, in areas with long winters where deep, insulating snowpacks protect its roots from freezing
- Often grows with amabilis fir and yellow-cedar

Notes
- Mountain hemlock is less shade-tolerant than western hemlock
- *Mertensiana* is named for German botanist Franz Karl Mertens
Common Names  Arbutus, Madrone, Pacific madrone

Scientific Name  *Arbutus menziesii*

General  • Size: Small to medium-sized, growing to 30 m tall but usually shorter; heavy, upright, twisting branches and rounded crown
• Bark: thin, smooth, reddish-brown, peeling in thin flakes or strips to expose younger, smooth greenish to cinnamon-red bark beneath

Leaves  • Alternate, evergreen, leathery, oval (to 15 cm long) leaves
• Dark, shiny upper side, and whitish green underside

Flowers  • Large, drooping, dense clusters urn-shaped, white, waxy, fragrant flowers

Fruits  • Orange-red berries, 1 cm long

Ecology  • Arbutus lives within 8 km of the ocean, and requires dry, sunny, rocky, well-drained sites
• Often lives near Douglas-fir and Garry oak trees
• Birds eat the berries and bees are attracted to the flowers

Notes  • The arbutus bark was used for tanning hides and medicinal purposes to treat colds, stomach ailments, and tuberculosis
• A Salish tale describes how Pitch used to go fishing at the ocean at dawn, before the sun rose, and would return before the day warmed up. One day, he returned too late, and he melted on the beach. People rushed to the beach to share him. Douglas-fir arrived first and received the most pitch, and poured it all over his head and body. Other people received less, and by the time Arbutus arrived, all the pitch was gone. To this day, Arbutus has no pitch.
• Another tale tells how the arbutus was the tree that the survivors of the Great Flood used to anchor their canoe to, on the top of Mount Newton (near the present-day city of Victoria). In reverence to this tree, the Salish people still do not burn arbutus as fuel
**Common Names**  
Paper birch, White birch, Canoe birch

**Scientific Name**  
*Betula papyrifera*

**General**
- **Size**: small to medium-sized (to 30 m tall) with a slender trunk
- **Bark**: peeling in papery strips; smooth and marked with brown horizontal lines; white to copper-brown in colour

**Leaves**
- Alternate, deciduous, sharp-pointed leaves (to 10 cm in length)
- Dull green upper side with pale and downy underside
- Triangle- or egg-shaped leaves with toothed edges

**Flowers**
- Catkins (2-4 cm in length) break up at maturity

**Fruits**
- Each tree produces thousands of seeds
- Nutlets have wings broader than the body

**Ecology**
- Low elevations, usually in mixed, sunny, second-growth forests
- Many herbivores depend on birch, especially as a winter food source
- Bird species often nest in paper birch trees

**Notes**
- Birch bark was peeled from the tree in large, flexible, waterproof sheets and was used as paper, and to make baskets, canoes, shelters, clothing, and for food storage
- Wood was burned as fuel; the inner bark was used as emergency food
- The sap was chewed as gum, either as a disinfectant or to produce mild euphoria.
- The sap has also been tapped to produce syrup, wine, and beer
- ‘Birch’ means a tree whose bark is used for writing on’, or ‘bark’
- *Papyrifera* means ‘paper-bearing’
<table>
<thead>
<tr>
<th><strong>Common Name</strong></th>
<th>Black hawthorn</th>
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<tr>
<td><strong>Scientific Name</strong></td>
<td><em>Crataegus douglasii</em></td>
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**General**
- **Size**: large shrub, or small tree to 10 m tall
- **Bark**: thorns to 3 cm long, grey, rough, scaly bark

**Leaves**
- Alternate, deciduous, thick, leathery, oval (3-6 cm long) leaves
- Dark green above and pale underside
- Top end has 5-9 lobes; edges are saw-toothed

**Flowers**
- White clusters of smelly flowers
- 5-petalled flowers are approximately 1 cm across

**Fruits**
- Clusters of blackish-purple little ‘apples’
- Edible, but with large seeds

**Ecology**
- Requires moist, open, sunny areas at low to middle elevations
- Often grows in forest edges, thickets, shorelines, streamside areas, roadsides

**Notes**
- The thorns had many uses, such as herring rake prongs, ear piercing tools, blister lancers, fish hooks, and game playing pieces
- The fruits were eaten both fresh and dried
- Hawthorn bark was used medicinally to treat circulatory disorders
- The strong, hard wood was used in creating weapons and tool handles
- Ashes from burned leaves and inner bark were mixed with grease for black face paint

  - *Crataegus* comes from the Greek word ‘kratos’ which means ‘strength’, because of the strength and fine grain of this wood
  - This species is named *douglasii* after the botanist-explorer David Douglas
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<tr>
<th><strong>Common Name</strong></th>
<th>Pacific crab apple</th>
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<tr>
<td><strong>Scientific Name</strong></td>
<td><em>Malus fusca</em></td>
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**General**
- **Size**: Small tree or shrub that grows to 12 m tall
- **Bark**: Sharp thorn-like shoots; mature trees have deeply fissured bark

**Leaves**
- Alternate, deep-green, egg-shaped leaves (up to 10 cm in length)
- Pointed leaves have toothed edges and irregular lobes

**Flowers**
- White and pink apple blossoms (up to 2 cm across)
- Fragrant and showy clusters

**Fruits**
- Green fruit ripen to yellow or red small apples (up to 2 cm long) in clusters
- Edible, but tart, fruit

**Ecology**
- Moist areas at low to middle elevations
- Forests, swamps, shores and banks near bodies of water

**Notes**
- Coastal peoples used to eat the apples fresh or store them in water; because of their acidity, the apples did not require further preservation – they become sweeter over time
- The bark was used for medicinal treatments of the eye and digestive tract
- Wood from the crab apple is somewhat flexible and was used to make wedges, bows, and tool handles
Common Name  Oregon ash
Scientific Name  *Fraxinus latifolia*

**General**
- **Size**: Medium-sized to 25 m tall
- **Bark**: Mature bark becomes greyish-brown and ridged

**Leaves**
- Opposite, compound with 5-7 leaflets on each twig
- Long (up to 13 cm), oval, leaflets are olive-coloured above and pale and woolly below

**Flowers**
- Small (3 mm), yellowish or greenish clusters of flowers

**Fruits**
- Paddle-shaped fruits have 1 seed, and look like ½ a maple tree’s fruit (‘helicopter’)
- 3-5 cm in length

**Ecology**
- Low elevations, growing in moist or wet environments, often in areas that are subject to flooding

**Notes**
- Traditionally, it was thought that Oregon ash protected an area from snakes, and areas where this tree grows are free from poisonous snakes
- This tough wood was used to make axe-heads, boats, and furniture
- The word ‘ash’ is most likely from the Latin *ascia* meaning ‘axe’ or *axis* meaning ‘axle’ since the wood of the European ash was used to make axes and axles
Common Name  Bigleaf maple

Scientific Name  Acer macrophyllum

General
- **Size:** The largest maple in Canada (up to 35 m tall); crown is narrow in forests, but broad in open areas
- **Bark:** young trees have smooth, green bark; mature bark is grey-brown, ridged, and often covered with mosses, lichens, and ferns

Leaves
- **Opposite, 5-lobed maple leaves, 15-30 cm across**
- **Dark green above, paler underneath, and turn yellow in fall**
- **Leaf stalks may ooze a milky substance when it is broken**

Flowers
- **Small, greenish-yellow flowers (3 mm across), hanging in clusters**

Fruits
- **Two-winged seeds in a V-shape (‘helicopters’), hanging in clusters at the ends of twigs, 3-6 cm long**

Ecology
- **Low to middle elevations, usually in areas with moist soils**
- **Often grows on gravely, moist soils near bodies of water**
- **Commonly occurs with red alder, black cottonwood, Douglas-fir, western redcedar, and western hemlock**

Notes
- **Bigleaf maple wood was used to make dishes, pipes, and paddles**
- **Coastal peoples used the inner bark to make baskets, rope, and whisks**
- **Young shoots and sprouted seeds were eaten raw, the sap was used to make a syrup, and the flowers are sweet and edible**
- **Parts of the maple were used to make medicine to treat sore throats and leaves were rubbed on a man’s face at puberty so he would not grow thick whiskers**
- **The calcium-rich bark encourages mosses to grow on the bigleaf maple; these moss layers may become so thick that soil accumulates into which tree roots can sprout and grow (these are called ‘canopy roots’)**
- **Macrophyllum is Latin for ‘large leaf’**
**Common Name**  
Garry oak, Oregon white oak

**Scientific Name**  
*Quercus garryana*

**General**
- **Size:** Grows up to 25 m tall, but sometimes stunted in rocky areas; heavy-limbed
- **Bark:** light grey with thick grooves and ridges

**Leaves**
- Alternate, deeply-lobed oak leaves (to 12 cm long)
- Dark shiny green above, greenish-yellow and brown-hairy below

**Flowers**
- Tiny, inconspicuous flowers

**Fruits**
- Acorns, 2-3 cm long, with a scaly cup on one end

**Ecology**
- Grow on dry, rocky slopes in low elevations
- Sometimes found in areas of deep, rich, well-drained soil
- Many species of birds make their homes in Garry oak meadows
- Garter snakes and lizards also live in their forest

**Notes**
- Garry oak wood was used for combs, digging sticks, and fuel
- The bark was one of the ingredients in the medicine used against tuberculosis and other ailments
- The acorns have bitter tannins, and were soaked in water before eating
- Carrying an acorn was thought to preserve a youthful appearance
- Oaks were considered sacred to the god of thunder

- Botanist David Douglas named the tree after Nicholas Garry of the Hudson’s Bay Company, who helped him in his travels
- *Quercus* is Latin for ‘oak’
Common Names  Pacific dogwood, Western flowering dogwood

Scientific Name  *Cornus nuttallii*

General  
- **Size**: Small tree or shrub, to 15 m tall; branches arranged in a circular pattern around the tree
- **Bark**: Smooth blackish-brown, becoming finely ridged with age

Leaves  
- Opposite, oval leaves (10 cm long), with pointed tips and a slightly toothed edge
- Dark green leaves, with veins curving parallel to the leaf edge

Flowers  
- The showy, white flowers are actually 4-6 modified leaves that surround a cluster of 30-40 small green flowers

Fruits  
- Clusters of dark red berries, that are edible but bitter

Ecology  
- Low elevations, on moist, well-drained sites in open to dense, mixed forests with Douglas-fir, grand fir, and western hemlock
- Many bird species and bears eat the fruit

Notes  
- First Nations peoples used the fine-grained, hard wood for knitting needles, bows and arrows
- The bark was used to make dyes, and preparations used as blood-purifiers, lung-strengtheners, and stomach-soothers.
  
  - Thomas Nuttall was the first scientist to recognize the tree as a new species; naturalist John James Audubon named the species *nuttallii*
  - One theory about where the name dogwood came from is that the berries were considered unfit for even a dog to eat! Alternatively, it may have been derived from the Sanskrit word *dag*, which means ‘dagger’ referring to the tree’s hard wood
  - The flower is the floral emblem of the province of British Columbia, and legislation protects the tree from being dug up or cut down
Common Name      Red alder
Scientific Name   *Alnus rubra*

**General**
- **Size:** Medium-sized (to 25 m tall); in open areas the crowns start near the ground are become cone-shaped
- **Bark:** Thin, grey, smooth, turning whitish with age; often has white patches of lichen

**Leaves**
- Alternate, oval-shaped with pointed tips (5-15 cm long)
- Coarsely-toothed edges; ladder-like pattern of veins

**Flowers**
- Male or female catkin clusters
- Male flowers are long (up to 12 cm), and female flowers are in short, woody, brown cones

**Fruits**
- A narrow, winged nutlet from the female flower (cone)

**Ecology**
- Very common along the coast of B.C.
- Usually occupies an area after a disturbance, growing rapidly
- Tends to live in areas rich in nutrients, especially along floodplains and streambeds
- Contributes nitrogen (a nutrient limiting plant growth) to the soil
- Often lives with black cottonwood, grand fir, Douglas-fir, cedars, salmonberry, and ferns

**Notes**
- The bark was used to make a red dye for dyeing basket material, wood, wool, feathers, human hair, skin, and fishing nets
- The inner bark was eaten as food
- The wood was also used for carving bowls
- Red alder wood is low in pitch, which makes it ideal for smoking fish
- The name alder might be from the Old English *alor*, which means ‘reddish-yellow’, which may refer to the colour of freshly exposed wood
**Common Name**  
Black cottonwood  

**Scientific Name**  
*Populus balsamifera ssp. trichocarpa*  

**General**  
- **Size:** Large, tall (to 50 m tall) trees with very sticky and fragrant buds  
- **Bark:** Younger trees have smooth, yellowish-grey bark; mature bark is dark grey and deeply furrowed  

**Leaves**  
- Leaves are oval to wedge-shaped with a sharply pointed tip, 6-12 cm long  
- Alternate, shiny, leaves; dark green on top and pale underneath  

**Flowers**  
- Male and female catkins are on separate trees  
- Male catkins are small (2-3 cm long), and female catkins are 8-20 cm long  

**Fruits**  
- Round, hairy, green capsules that open to release seeds covered with white, fluffy hairs  

**Ecology**  
- Require very moist sites at low to medium elevations  
- Often found in sunny areas along floodplains of rivers and on islands  

**Notes**  
- First Nations peoples on the coast used the trees to make dugout canoes  
- Cottonwood burns well and was used to smoke fish, and soaps and shampoo were made from its ashes  
- The resin from the buds had many uses; boiled and mixed with pigments to create paint; waterproofed baskets and boxes; glued feathers to arrow shafts; boiled in deer fat to make a fragrant salve; used in treatments for baldness, sore throats, whooping cough, bruises and open cuts  
- Old rotten leaves were boiled for a bath to soothe body pains  
- Some First Nations peoples believed that the cottonwood has a life of its own because it shakes when there is no wind; for this reason, they would never use cottonwood as fuel  
- Named cottonwood for the white hairs on the mature seeds which appear like wisps of cotton or snow
Common Name: Bitter cherry

Scientific Name: *Prunus emarginata*

**General**
- **Size:** Shrubs or small trees, up to 2-15m tall
- **Bark:** Reddish-brown or grey, peeling horizontally (like paper birch)
- **Horizontal rows of raised pores**

**Leaves**
- Small, oval-shaped leaves (2-8 cm long), rounded at tip
- Yellowish-green, thin, with small, uneven-sized teeth on edges

**Flowers**
- Small, white or pinkish flowers, 5-10 in a cluster

**Fruits**
- Bright red cherries to 1 cm in diameter
- Edible, but bitter flesh

**Ecology**
- Low to middle elevations, in moist forests and along streams, in nutrient-rich soils

**Notes**
- The fruit of this tree was only used occasionally because of its bitter tasting flesh
- Bitter cherry bark is tough and waterproof, and was peeled off in strips used to decorate basketry
- The bark was also wrapped around the joints of harpoons and arrows and covered with pitch for strength and waterproofing
- Softened bark was made into twine for baskets, mats, and tying together joints in house-building

- *Prunus* is Latin, meaning ‘plum’