



NATIVE PLANT ID

Celebrate the biodiversity of our urban forest as you discover some of the many plants found in Surrey.

Surrey **Parks**

REFERENCES

Garry Oak Ecosystem Recovery Team, *Native Plant Flowering Times for BC's Garry Oak Ecosystem*.
<https://www.goert.ca/documents/GOERT-native-plant-flowering-times.pdf>, 2021.

MacKinnon, A., & Pojar, J., *Plants of Coastal British Columbia: including Washington, Oregon & Alaska*.
Vancouver, British Columbia, Canada, Lone Pine Publishing, 2004.

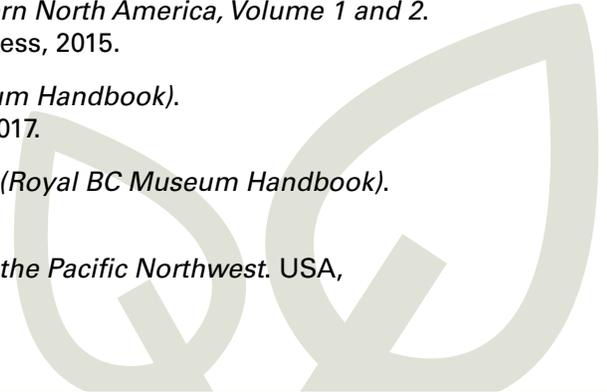
McMullen, J., *Pacific Northwest Plant Knowledge Cards*. Canada, Strong Nations Publishing Inc., 2018.

Turner, N., *Ancient Pathways, Ancestral Knowledge: Ethnobotany and Ecological Wisdom of Indigenous Peoples of Northwestern North America, Volume 1 and 2*.
Montreal, Quebec, Canada, McGill-Queen's University Press, 2015.

Turner, N., *Food Plants of Coastal First Peoples (Royal BC Museum Handbook)*.
Victoria, British Columbia, Canada, Royal BC Museum, 2017.

Turner, N., *Plant Technology of First Peoples in British Columbia (Royal BC Museum Handbook)*.
Canada, Royal BC Museum, 2007.

Varner, C., *The Flora and Fauna of Coastal British Columbia and the Pacific Northwest*. USA,
Heritage House Publishing Company Ltd., 2018.





BIGLEAF MAPLE

Acer macrophyllum

General description

Large deciduous tree, often multi-stemmed trunk. Broad leaves are very large with five lobes and smooth edges. Mature bark is grey-brown with ridges often covered with mosses, lichens and licorice ferns.

Flowers, fruit, seeds

Flowers are about 3 mm across, greenish-yellow and hang in clusters. Fruit are golden brown, winged, samaras or 'helicopter seeds', 3–6 cm across and V-shaped. Known as maple-keys.

ID tip

Deeply lobed leaves are very large, typically 15–30 cm across with some even reaching 60 cm. Trunk and branches carry large amounts of mosses and other plants; this is particularly helpful for identifying bigleaf maples in winter.



Phenology

Flowers in early spring, typically April. Seeds ripen early September and October and are dispersed between October and January. Leaves turn a golden yellow in the fall.

Did you know?

The sap can be used to make a syrup, but the sugar maple (native to the East coast) is the main maple syrup tree in Canada. The paired winged seeds are an important food source for some birds and small mammals.

Traditional use

Used traditionally by Northwest Coast peoples for a wide variety of things including medicine for sore throats and tools such as fishing lures. The maple is called the 'paddle-tree' in many Indigenous languages because the wood has often been used to make paddles. Its large leaves have been used to line berry baskets and steam pits.



BIGLEAF MAPLE

surrey.ca/schoolprograms



BRACKEN FERN

Pteridium aquilinum

General description

A large coastal fern with large fronds usually standing 1–3 m tall. Triangular blades with 10 or more pairs of leaflets.

Flowers, fruit, seeds

Bracken fern reproduce by spores (as opposed to seeds) which are found within the rust-coloured sori visible on the underside of the leaves.

ID tip:

Leaflets appear to grow on a stem branching off the main stem. Often found in meadows, roadsides, and clearings.



Phenology

Not applicable. Fiddleheads (young, coiled fronds) can be found April through June.

Did you know?

It's one of the world's most widespread ferns. Its deep running rhizomes (modified stems that run underground) can withstand forest fires; it's often found growing on burned areas. Despite being a traditional food source of Northwest Coast peoples, roots have been known to poison livestock and are linked to stomach cancer.

Traditional use

Used traditionally by Northwest Coast peoples for many household purposes. Often used in similar ways as sword ferns; to line cooking pits and baskets. The fibrous parts of the rhizomes were dried and used as tinder.



BRACKEN FERN

surrey.ca/schoolprograms



DOUGLAS-FIR

Pseudotsuga menziesii

General description

Large coniferous tree with thick, grey-brown, rough and furrowed bark. Leaves are long (2–3 cm), flat, green needles with pointed ends.

Flowers, fruit, seeds

No flowering period. Pollen cones are small and reddish-brown. Seed cones (5–10 cm long) are green at flowering, turning reddish-brown to grey. Scales of cones are papery, with unique, three-pronged, pointed bracts.

ID tip

Look for the ‘mice’ hiding in the seed cones—the bracts look a little like two feet and a tail poking out. Young bark is grey and smooth with resin blisters. Mature bark is distinct with thick, rough and deep cracks.



Phenology

Evergreen. New growth appears as lime-green tips on branches in April.

Did you know?

It can live for over a thousand years. Despite being called a fir, it is not a true fir tree; its cones hang as opposed to those of true firs which stand up. Needles give off a citrusy-grapefruit aroma when crushed. Douglas squirrels peel away the cones' scales to get at the seeds, sometimes leaving behind piles of discarded scales if they continue to return to the same place to eat.

Traditional use

Used traditionally by Northwest Coast peoples for a wide variety of things including food, medicine, and tools. Its wood is known for being strong and durable; it was used to make spoons, harpoon shafts, smoking racks and more. The wood is considered an excellent fuel.



DOUGLAS-FIR

surrey.ca/schoolprograms



DULL OREGON-GRAPE and **TALL OREGON-GRAPE** *Mahonia nervosa* and *Mahonia aquifolium*

General description

Evergreen shrubs with compound, shiny, leathery leaflets with spiny teeth along their edges. Dull Oregon-grape has 9–19 leaflets per leaf, while tall Oregon grape has 5–9 leaflets. Leaves turn purplish or reddish in winter.

Flowers, fruit, seeds

Flowers are bright yellow. Berries are small (1 cm), blue and grape-like.



ID tip

Leathery leaflets with spiny teeth along their edges. While they look similar to English holly leaves, leaflets appear less waxy, flatter and their spiny teeth are less pronounced. Commonly found in second growth, shady Douglas-fir forests.

Phenology

Tall Oregon-grape flowers at end of February, into March and April. Dull Oregon-grape flowers April and May. Berries ripen in summer.

Did you know?

With their green leaves that turn purplish to reddish in winter, to bright yellow flowers and blue and purplish fruit, they add a variety of colour to the forest throughout the year.

Traditional use

Sour berries usually eaten with sweeter berries. When the bright yellow inner bark is boiled in water, a yellow dye can be extracted in which basket materials could be dyed.

OREGON-GRAPE





OSO BERRY

Oemleria cerasiformis

General description

1.5–5 m tall deciduous shrub or small tree. Lance-shaped leaves alternate along branches.

Flowers, fruit, seeds

White flowers hang down in clusters from the stem. As fruit ripen, they turn from yellow to peach-coloured to blueish black like small plums with large pits.

ID tip

Long (5–12 cm), lance-shaped leaves, clusters of white flowers or small, plum-like fruit. Often found with an overstory of Douglas-fir, Western redcedar or cottonwood.



Phenology

Flowers in late winter as early as February and March, typically before leaf-out. Despite being one of the first to flower, its fruit are one of the last to ripen in June.

Did you know?

Leaves have a strong cucumber-like smell when crushed. The name 'oso' means bear in Spanish; the name may have originated from Spanish explorers who saw bears eating the fruit.

Traditional use

Important traditional food source and medicine for Northwest Coast peoples. Berries are bitter and were generally only eaten in small quantities. Osoberry were often eaten with grease (an edible fish oil, also known as eulochon oil).



OSOBERRY

surrey.ca/schoolprograms



RED ALDER

Alnus rubra

General description

Medium to large, fast-growing deciduous tree. Bark is thin, grey, and smooth, often with patches of moss and white lichen growing on it. Leaves are ovate with toothed edges, straight veins and a pointed tip.

Flowers, fruit, seeds

Male flowers appear as long (5–15 cm), hanging catkins. Female flowers, sometimes confused as seed cones, are small (2 cm) and cone-like. Both begin green and turn brown.

ID tip

Look for bright green leaves with toothed edges, and signs of the hanging catkins or tiny, woody, cone-like flowers. Bark is often covered with white lichen patches. Alders grow in cool, moist, disturbed sites and alongside stream banks.



Phenology

Flowers in March. Seeds ripen from September to October. Leaves follow flowers and generally stay green until they drop off in late fall.

Did you know?

Its name likely comes from the rusty red colour the inner bark and wood turn when cut and exposed to air. Alder is considered to be a pioneer species as it's one of the first to grow in disturbed and burned areas. It's able to grow in nitrogen-poor soil due to the symbiotic relationship it has with bacteria; enabling it to transform atmospheric nitrogen into a form usable by plants.



Traditional use

Used traditionally by Northwest Coast peoples for a wide variety of things including food, medicine and tools. Red alder wood is considered to be excellent fuel for smoking salmon. It has also been extensively used to dye fishing nets, basket materials, wooden masks and much more.



RED ALDER

surrey.ca/schoolprograms





RED HUCKLEBERRY

Vaccinium parvifolium

General description

3–4 m tall deciduous shrub with bright green, angled branches. Small (up to 3 cm), oval, smooth-edged leaves and round, red berries.

Flowers, fruit, seeds

Flowers are bell-shaped and creamy pink. Berries are small (1 cm), round and bright red.

ID tip

Branches look and feel slightly squared rather than cylindrical. They are lacy and have a slight zig zag. Often found growing from old stumps or decaying logs in coniferous forests.



Phenology

Flowers in March, April, and May. Fruit ripen in July and August.

Did you know?

Huckleberries have not been domesticated like many other berries; they are notoriously picky and sensitive to their roots being disturbed. They are an important food source for songbirds and many mammals.

Traditional use

Important traditional food source and medicine for Northwest Coast peoples. Berries were eaten fresh or mashed and dried into cakes, and stored over the winter months, and are still popular today. Berries made for good fish bait because of their resemblance to salmon eggs.



RED HUCKLEBERRY

surrey.ca/schoolprograms



RED-OSIER DOGWOOD

Cornus stolonifera

General description

1–6 m tall deciduous shrub with multiple red-coloured stems. Branches grow opposite. Leaves are oval with pointed tips, 5–7 prominent parallel veins and smooth margins.

Flowers, fruit, seeds

Flowers are small (2–4 mm), have four petals, and are white to greenish in colour. They grow in dense clusters. Fruit are white, berry-like drupes, and are bitter and inedible.

ID tip

Bright red stems, oval leaves with veins that converge at the tip. Filmy white threads run through the veins of the leaf when split crosswise. Grows in moist soil; typically wetlands, forested areas along streams, or disturbed sites. Leaves are slightly reddish-purple in the fall.



Phenology

Flowers in May and June. Berries ripen in the summer.

Did you know?

Its deep red stems, white flowers and fruit make it an attractive plant throughout the year. It provides habitat for birds, mammals and insects. It's a good choice for restoration along stream banks as its extensive root system helps minimize soil erosion.

Traditional use

Traditionally used by Northwest Coast peoples in a variety of medicinal preparations. The inner bark contains a painkiller and tea from the bark has been used to treat digestive disorders and swollen legs.

RED-OSIER DOGWOOD

surrey.ca/schoolprograms



SALAL

Gaultheria shallon

General description

0.2–5 m tall evergreen shrub. Leathery, shiny and egg-shaped leaves (5–10 cm). Stems are hairy and branched.

Flowers, fruit, seeds

White or pinkish urn-shaped flowers grow at branch ends. 'Berries' (not technically berries) are reddish-blue to dark purple.

ID tip

Leathery leaves stay dark green all year. One of the most common forest understory shrubs in our region.



Phenology

Flowers in April and May. Fruit ripen in late summer.

Did you know?

Often used ornamentally (for decorative purposes) because it stays green throughout the winter. Its leathery leaves also stay dark green a while after it's cut making it ideal filler in floral arrangements.



Traditional use

Important traditional food source for most Northwest Coast peoples. Berries are high in pectin and vitamin C making them a great option for jams and preserves. They could also be eaten fresh, mixed with other berries, or crushed and dried into cakes for winter.



SALAL

surrey.ca/schoolprograms



SALMONBERRY

Rubus spectabilis

General description

2–4 m tall deciduous shrub. Leaves have three sharply toothed leaflets. Prickly, golden-brown stem.

Flowers, fruit, seeds

Flowers are pink (almost magenta) with five petals. Fruit are raspberry-like and yellow, orange or red.

ID tip

When flipped upside down, the shape of the three sharply-toothed leaflets resembles a moustache and a goatee. Berries look like a cluster of salmon eggs.



Phenology

Flowers March through June. Berries appear in spring; ripen from mid-June to mid-July.

Did you know?

While the name generally refers to the appearance of the berries, there are other connections to salmon. It grows in abundance along stream edges, adding shade to young salmon habitat. Ripening salmonberries are sometimes used as a marker that the spring salmon run will soon begin.

Traditional use

Important traditional food source and medicine of Northwest Coast peoples. Sprouts eaten both fresh and as a steamed vegetable. Berries mainly eaten fresh as they have a high water content and are difficult to store for winter. Both often eaten alongside salmon and continue to be enjoyed today. Parts of the plant have been used to make arrow shafts and other tools.



SALMONBERRY

surrey.ca/schoolprograms



SITKA SPRUCE

Picea sitchensis

General description

Large coniferous tree with horizontal branches. Thin, scaly, gray-brown bark. Leaves are stiff, sharp needles about 1–3 cm long.

Flowers, fruit, seeds

No flowering period. Red pollen cones. Seed cones (5–8 cm long) droop, are reddish-brown and have papery thin scales.

ID tip

If you wrap your hand around a branch, you'll feel the noticeable pokes of the sharp stiff needles growing all around the twig. Its patchy gray bark is another thing to look for when its branches are too high to reach.



Phenology

Evergreen.

Did you know?

Spruce trees were commonly used in construction of early planes due to their high strength-to-weight ratio.

Traditional use

Used traditionally by Northwest Coast peoples for a wide variety of things including food, medicine, clothing and tools. New shoots and inner bark are good sources of vitamin C. Spruce roots have been an important weaving material for baskets and hats.



SITKA SPRUCE

surrey.ca/schoolprograms



SNOWBERRY

Symphoricarpos albus

General description

1–2 m tall deciduous, shrub. Leaf shape varies between young and old stems. Generally, leaves are oval shaped (2–4 cm) and grow opposite each other. Leaves from young shoots are often irregularly lobed while leaves from older stems are oval with slightly wavy edges.

Flowers, fruit, seeds

Flowers are bell shaped, white to pink, and grow in dense clusters. Round, waxy, and white berries are toxic to human.

ID tip

Clusters of pea-sized white berries, reddish brown bark, and oval-shaped leaves. In the winter, its white berries stand out amongst its leafless stems.



Phenology

Flowers in early summer. Berries appear in early fall and persist through the winter.

Did you know?

Small mammals and birds use thickets as cover. Snowberry is a top choice for restoration planting.

Traditional use

Have long been considered poisonous by Northwest Coast peoples. It has been given names like 'corpse berry' or 'snake's berry' in several languages. Twigs and sticks were sometimes peeled and sharpened into small tools such as skewers or arrow shafts or bound together to make brooms.



SNOWBERRY

surrey.ca/schoolprograms



STINGING NETTLE

Urtica dioica

General description

1–3 m tall perennial with dark green, opposite, coarsely toothed leaves. Leaves vary slightly from narrowly lance-shaped to oval or heart-shaped. As a herbaceous perennial, it will die down to the ground and send new growth from its roots over multiple years.

Flowers, fruit, seeds

Flowers are tiny, green, and form dense drooping clusters.

ID tip

Single-stemmed with coarsely toothed leaves with strong veins and fine hairs. Often found growing in thickets in disturbed sites and open forest.



Phenology

Flowers May through September.

Did you know?

It has a reputation for its stinging hairs; as the hollow hairs break, they release formic acid which irritates skin on contact. While young shoots must be harvested carefully to avoid stings, drying or cooking disarms their stings making them suitable to eat. It's also an important plant for the Oregon forest snail, a species at risk in Canada; it is suggested that the consumption is needed for healthy shell growth and durability.

Traditional use

Important traditional resource for Northwest Coast peoples. Various parts of the plant have been used in a variety of ways including food, tea, tools, and medicine. Coastal peoples harvest the fibrous stems as they begin to die back; they can be prepared and worked into a twine for tying, binding or as part of other tools such as bowstrings or fish nets.

STINGING NETTLE

surrey.ca/schoolprograms



THIMBLEBERRY

Rubus parviflorus

General description

0.5–3 m tall deciduous shrub often forming dense thickets. Leaves are large (up to 25 cm across), maple-leaf shaped with toothed edges and fuzzy to the touch on both sides.

Flowers, fruit, seeds

Flowers are white with crinkled petals. Delicate berries are hairy, and thimble-shaped with a shallow dome and turn from green to pink to red as they ripen.

ID tip

Large, fuzzy feeling leaves that resemble a maple leaf. Often found in open sites, or red alder forests. No prickles.



Phenology

Flowers in May and June. Berries ripen July through September.

Did you know?

Nicknamed 'nature's toilet paper' for the large surface area and softness of its leaves.

Traditional use

Its berries and young sprouts are important traditional food sources for Northwest Coast peoples. Other parts of the plant have been used medicinally and to make soap. Large leaves were used to line steaming pits and cover berry baskets.



THIMBLEBERRY

surrey.ca/schoolprograms





TRAILING BLACKBERRY

Rubus ursinus

General description

Low growing blackberry that trails along the forest floor. Stems are prickly and covered in a waxy coating which give it a pale blue-green colour. Its deciduous leaves alternate and grow with three toothed leaflets about 3–7 cm long.

Flowers, fruit, seeds

Flowers are white or pink with long spreading petals. Berries are black, longish and 1 cm across.

ID tip

Pale blue-green stem, with sharply toothed leaves that are always in groups of three (blackberry varieties are most often in leaves of five). Leaf veins are prickly. Common on disturbed sites, thickets, and dry, open forest.



Phenology

Flowers in April through June. Berries ripen in July and August.

Did you know?

Vines are also known as 'living trip wires' because they grow low on the ground and can be tripping hazards. With male and female plants being separate, you can come across large areas of male plants with no berries. This is our only native blackberry.

Traditional use

Important traditional food source and medicine for many Northwest Coast peoples. Stems have been used in purification rituals and berries for staining. Old red leaves can be brewed into a tea.



TRAILING BLACKBERRY

surrey.ca/schoolprograms



VANILLA LEAF

Achlys triphylla

General description

Low growing perennial with three fan-shaped, asymmetrical leaflets. Leaflets grow at the top of a single-stemmed leaf about 10–30 cm off the ground.

Flowers, fruit, seeds

Flowers grow on their own dainty stalk (separate from leaves). Flowers are tiny and white with no petals. Fruit are brown to reddish-purple and round.

ID tip

Three fan-shaped leaflets with lobed edges. Found on the floor of moist, shady forests and forest edges and openings. In some areas, its leaves can appear to cover the understory in a blanket of green.



Phenology

Flowers April through June.

Did you know?

Nicknamed 'sweet-after-death' for the sweet vanilla scent when leaves are dried. In fall and winter, leaves lose their outline but unlike other plants whose leaves wither and die, they form a lacy network of veins resulting in a leaf skeleton.

Traditional use

Used as an insect repellent by various Northwest Coast peoples. They could be dried and hung in bunches to keep flies and mosquitoes away, or boiled and used to clean bedding, furniture, and floors of pests.



VANILLA LEAF

surrey.ca/schoolprograms



VINE MAPLE

Acer circinatum

General description

Deciduous shrub or small tree (up to 7 m) with sprawling branches. It often roots and forms new trunks. Bark is pale green turning brown with age. Leaves are maple-shaped, deciduous, toothed, and hairy on the underside with 7–9 lobes.

Flowers, fruit, seeds

Flowers are small and white, and grow in clusters at the end of the shoots. Winged fruit (2–4 cm long), samaras or ‘helicopter seeds’, begin green and turn reddish brown.

ID tip

Pale green stems, maple leaves with additional lobes, and winged fruit. Grows in moist to wet areas, generally under trees where some light reaches the forest floor.



Phenology

Leaf out in early spring, followed by flowers in early April.

Did you know?

Winged fruit can be distinguished from other maples by their straight line, rather than V-shape. In the fall, leaves turn fire-engine red in open sites. Vine maple leaves filter incoming sunlight providing dappled light to the plants below.

Traditional use

Used traditionally by Northwest Coast people for making things such as spoons, bows and fishing nets, and for medicinal teas.



VINE MAPLE

surrey.ca/schoolprograms





WESTERN HEMLOCK

Tsuga heterophylla

General description

Large coniferous tree with a narrow crown and drooping leader. Bark is rough, reddish-brown, scaly, and furrowed in mature trees (less than Douglas-firs). Leaves are feathery needles that are short, flat, and irregularly spaced.

Flowers, fruit, seeds

No flowering period. Tiny pollen cones are numerous and bluish-green. Seed cones are about 2 cm long.

ID tip

Seed cones are the smallest compared to the other common evergreen trees. Its flat needles are mid-dark green on top with two whiteish stripes on the underside. The growing tip at the top of the tree characteristically droops.



Phenology

Evergreen.

Did you know?

It's often found growing on decaying wood such as stumps and logs. There is a traditional story that tells of the Western Hemlock and why it 'hangs its head down.' Needles give off a distinct aroma when crushed.

Traditional uses

Used traditionally by Northwest Coast peoples for a wide variety of things including food, medicine and tools. Its bark has a high tannin content and has been used for tanning hides, as a cleaning solution, and can be boiled in water to make a red dye. Its wood has been widely carved into spoons, bowls, combs, mallets, digging sticks and much more.



WESTERN HEMLOCK

surrey.ca/schoolprograms



WESTERN REDCEDAR

Thuja plicata

General description

Large coniferous tree native to BC's coast and through the Pacific Northwest. Scale-like, flat leaves are green with white 'butterfly markings' on the underside. Branches tend to spread or droop then turn up (J-shape or 'monkey-tails'). Bark is grey to reddish-brown, with long fibrous strips.

Flowers, fruit, seeds

No flowering period. Pollen cones are very small (2 mm), numerous and appear on separate branches than seed cones. Small seed cones (1 cm long) change from green to brown and woody. Tiny seeds are protected inside.

ID tip

Reddish-brown bark with long strips and 'monkey-tail' or J-shaped branches. Unique yellowish green scaley leaves.



Phenology

Evergreen.

Did you know?

It is sometimes called arborvitae which is Latin for tree of life. It is British Columbia's provincial tree. Wood and needle-like leaves have a strong aroma.



Traditional use

Used traditionally by Northwest Coast peoples for a wide variety of things including food, medicine and tools. Wood has been used to make dugout canoes, totem poles, masks, cedar boxes and much more. Strips of bark can be woven into baskets, hats and mats. The Western redcedar is an important part of Indigenous cultures for both spiritual and practical importance. This is the most extensively used tree throughout the Pacific Northwest and is still used today.



WESTERN REDCEDAR

surrey.ca/schoolprograms





WESTERN SWORD FERN

Polystichum munitum

General description

Large evergreen fern (1.5 m) that is very widespread in coastal BC. Long blade-like fronds grow out of a central point. Each frond has alternate leaflets along the stem. Leaflets can be distinguished by their sharp point, toothed edges, and small lobe at the base giving them a sword-like appearance.

Flowers, fruit, seeds

Sword fern reproduce by spores (as opposed to seeds) which are found within the rust-coloured sori visible on the underside of the leaves.



ID tip

Large, long, green fronds growing out of a central point. Leaflets have a small lobe at the base that points upwards. Often found growing in damp forests alongside Western redcedar trees.

Phenology

New fronds, or fiddleheads, appear early spring. Spores mature in late summer.

Did you know?

Ferns produce a chemical that make them unpalatable and/or toxic to some animals. Each frond can live for several years.

Traditional use

Extensive use by Northwest Coast peoples in food preparations, medicine, or in spiritual practices. Most coastal groups have used the leaves (fronds) to line cooking pits, baskets, floors and as bedding.



WESTERN SWORD FERN

surrey.ca/schoolprograms