The Plants Among Us

A kid's guide to the Plants of New Westminster and Beyond

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Introduction

Plant blindness is a term used to describe our tendency to not distinguish between the individual plants around us, but to instead see a “sea of green”. The intent of this guide is to help counteract plant blindness. To provide a plant identification guide that is directed towards elementary school students that will serve to stimulate curiosity about the sea of green in New Westminster and beyond.

As students start to identify the diversity of plants in their neighbourhoods, they’ll soon see areas covered by one or two invasive species, such as Himalayan Blackberry or Ivy. Invasive species are those that are introduced to a new area and then rapidly grow and outcompete local species. This guides provides information on some of the predominant invasive plant species in New Westminster and the region. By identifying invasive species, students will soon see how their neighbourhoods are impacted by invasive plant species.

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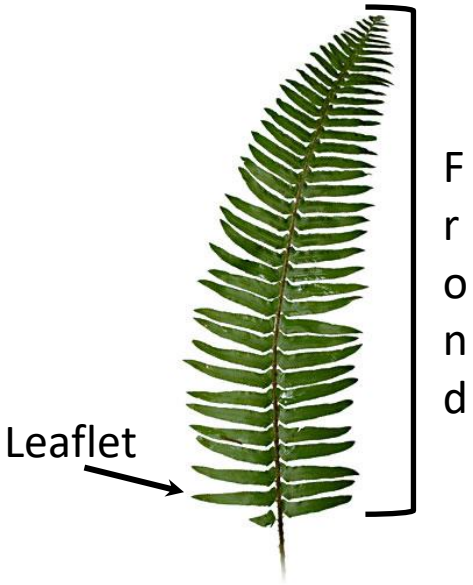
List of Species

1. Sword Fern

Latin Name: Polystichum munitum



If you look around the forest floor and see ferns, you are likely seeing the Western Sword Fern. It is one of the **most common** fern species in this area. This species likes to live under our evergreen trees on moist forest floors. It can even grow up to 2 metres in height!

Why do you think it is called a sword fern? Or, poly -"stick"-em in Latin? Look closely at each individual leaflet. Where the leaflet connects to the base there is a small piece pointing upward and it is thought to look like the handle of a sword. Can you see it?

First Nations people roasted, peeled and ate the rhizomes. Where would you find **rhizomes**? Rhizomes are underground stems that often connect many plants together. **Spores** of this fern also have many medicinal uses, including relieving the pain from the sting of a stinging nettle. Where would you find the spores if you needed them? Flip over the blade and see if you can find them.

Each plant species has two Latin names for its **Genus** and **Species**. *Polystichum* is the Genus name and *munitum* is the species name. Just like we use first and last names. If you want to sound like a **botanist** (a scientist who studies plants), use the Latin name instead of the common name.

2. Licorice Fern

Latin Name: Polypodium glycyrrhiza
(also Many-Footed Fern, Sweet Root)


By Lisa Sumner- pinterest

When's the best time to go hunting for licorice in our forests? Winter of course! Licorice ferns thrive in the winter and tend to dry out in the summer heat.

You'll have to **look up** to find these ferns. They are often found on trunks and branches of trees that drop their leaves in winter, especially Big Leaf Maples. They can also be found on nurse logs, rocks and in mossy areas. Notice the **slender** curved shape of each leaflet.


By Brewbooks- flickr

Spores and leaflets of the Licorice Fern

Why is it called a licorice fern? Its rhizome was once chewed for its flavor! It is now used to make sweet tasting tea and drinks. It has also been used as a remedy for colds and sore throats. But, please **do not try to eat** the ferns!


By Leslie Seatons- Flickr

Here are the spores of another fern. What type of fern is this? How can you tell?

3. Bracken Fern

Latin Name: Pteridium aquilinum

The Bracken Fern gets around. It is the world's most common fern species. It can grow as tall as 5 m. One thing you may notice about the bracken fern is that it has **branches**. Take a look at the other fern species. Can you see the difference between the branched Bracken Fern and the other species?

Fiddleheads are the youngest fronds that haven't uncurled yet. See if you can find them in the spring time. You may have heard that some people eat fiddleheads. But **don't** go collecting **Bracken Fern fiddleheads** to eat! These fiddleheads have to be prepared just right or you may get quite sick from a chemical that the fern produces called "**ptaquiloside**". Can you say ptaquiloside? "ta-quil-oh-side" This chemical is also thought to cause cancer, so treat the Bracken Fern fiddleheads with respect.

Notice that there are branches off of the main stem

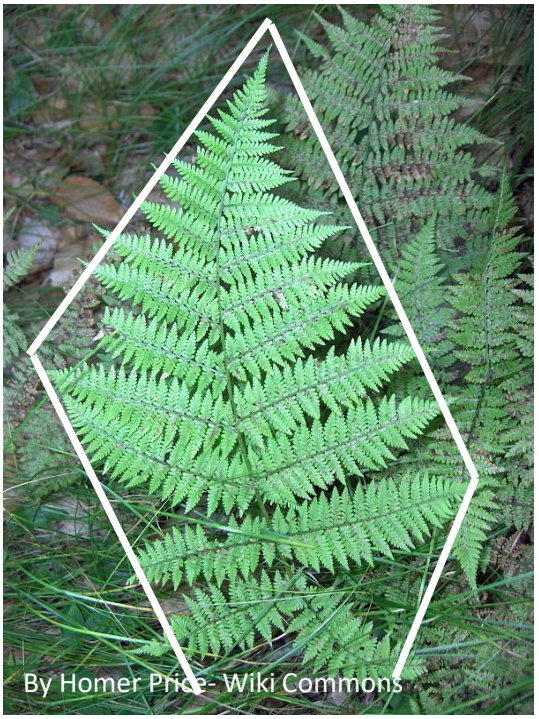
Fiddleheads

4. Lady Fern

Latin Name: Athyrium filix-femina

You may not notice this fern. It is not as imposing as the sword fern. It does not grow on trees like the licorice fern. It is not branched and tall like the Bracken fern. Its leaflets are more delicate with **ruffled edges**. If you look at the shape of the whole "frond", you'll see that it is **diamond-shaped**. Leaflets are short at the top, are wide in the middle and short at the base. Some people think about the song "Diamonds are a girl's best friend" to remember this fern!


By Rosser1954- Wiki Commons


By Homer Price- Wiki Commons

Can you see the diamond shape of the fern frond?


By Homer Price- Wiki Commons

5. Stinging Nettle

Latin Name: Urtica dioica

DO NOT TOUCH!

If you have touched a stinging nettle, you will remember! Nettle leaves and stems are covered by **needle-like hairs**. If you break the hairs, formic acid oozes onto your skin.

Take a close look at the leaves. Each leaf has deeply **toothed edges** and grow opposite from one another. When the nettle is flowering, you will also see drooping clusters of tiny flowers,or fruits dangling from where the leaves meet the stems. Memorize this plant, because you wouldn't want to use these leaves as toilet paper.

If you cook the leaves long enough, you can eat nettles without burning your mouth! Nettles are an excellent source of vitamins. Many First Nations groups harvest nettles in the spring and nettles are a popular food source in many European countries. Some people even place fresh nettle leaves on their skin on purpose if they have arthritis, or sore joints.


By Brewbooks- flickr


By Uwe Friese- Wiki Commons

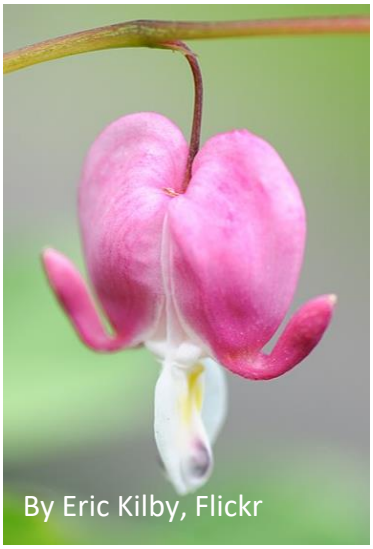
Ouch! Get me some Sword Fern spores!

6. Bleeding Heart

Latin Name: Dicentra formosa

Which plant has the saddest tale to tell? It must be the bleeding heart. The fern-like leaves of the bleeding heart can cover the forest floor. In the early spring, long thin stalks grow. On top of the stalks, you will see **heart-shaped pink flowers**. Do you think that the flowers look like hearts? Look at its fancy leaves.

When the flower produces the seed, a pea-like pod hangs from the flower. The pod holds the seeds. Take a close look at the pod. Do you see something white on the pod? Now look again. Do you see any ants? Are any ants carrying the seed pods? The small white part of the pod is made of fat. **Ants** like the fat, so they carry the pods home. Now the seeds have a new home and can grow.
But why are the hearts bleeding?


By Eric Kilby, Flickr


By Walter Siegmund – Wiki Commons

7. Hooker's Fairybells

Latin Name: Disporum hookeri

If you are on the hunt for forest fairies, look down on the ground for these lilies. You'll know it's a lily, if you see the smooth dark green leaves with **side by side leaf veins** that do not cross. What are leaf veins? They are tubes through which water and food move around the plant. You'll notice the leaves covering the ground. In the spring, you will notice 2 to 3 **white flowers** hanging down at the end of each stem. The flowers look like fancy bells that you could easily imagine being rung by fairies.


By Steve Redman- Wiki Commons

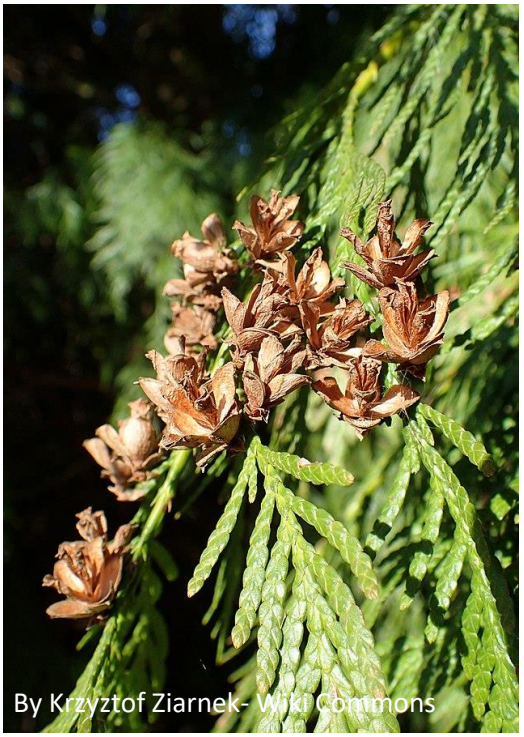

By Colin Durfee- flickr

Rain drops follow the leaf veins to the pointy tips of the leaves and drop to the ground. The leaves keep the flowers from getting wet, and maybe fairies too. The flowers turn into **red berries**. Many First Nations groups considered the berries to be poisonous. They thought of ghosts rather than fairies when they saw these plants. Can you find the fairy bells? Now look closer. Do you see any fairies or ghosts?


By SriMesh – Wiki Commons

8. Western Redcedar

Latin Name: Thuja plicata


By Krzyztof Ziarnek- Wiki Commons

This tree is the **official tree** of British Columbia. This tree sets the stage for the forest that grows beneath it. If you look at the tree from far away, notice its long drooping branches that turn up at the end. When you are close to the tree, notice its reddish stringy bark. The leaves grow in a flat arrangement and overlap like **scales** of a fish. Crush the leaves between your fingertips. What does it smell like? Pineapple maybe.


By Nucatum amygdalarum- Wiki Commons

Which type of cone is this?

Take a closer look. This tree produces two types of cones: **seed and pollen cones**. The seed cones look like rose buds and have many scales. The pollen cones are smaller and are reddish in colour, and are found at the tips. Can you find each type of cone?


By Criuiser- Wiki Commons

The wood from this tree does not decay as quickly as other types of wood. It produces **thujaplicin**, a chemical that prevents rot. Can you see where the name for the chemical came from? This tree is very important to local **First Nations**, and has many uses.

9. Sitka Spruce

Latin Name: Picea sitchensis

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If you say hello to this tree and shake its "hands", you'll be met with a **spiky** surprise! That's because the twigs are covered in bluish-green **needles** that are stiff and needle-like. Look closely and you'll see that each needle has two white bands. If you had a microscope, you could look at the two white bands and see rows of "stomata" that lie next to them. Stomata are openings that allow the tree to breathe.

By Anne Burgess- Wiki Commons

Take a look at the tree trunk. How does the bark differ from the other conifer trees? This tree's **bark is scaly and grey**. Take a look at the cones. How do they compare to the other cone-producing trees?

The wood from this tree is often used to make **musical instruments** such as pianos and guitars because it is an excellent conductor of sound. The next time you hear a guitar song…think of the Sitka Spruce.

10. Douglas Fir

Latin Name: Pseudotsuga menziesii


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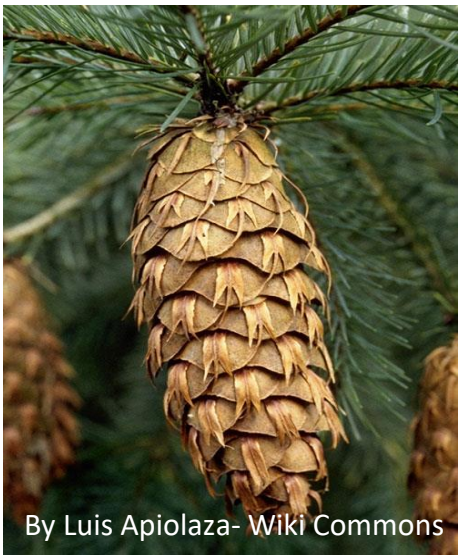
Try shaking hands with this tree. Is it a "**spiky spruce**" or a "**friendly fir**"? The needles of this tree are blunt and flexible, as opposed to its spikier cousin. Each needle has a groove down the center. Take a look at the bark. This tree has reddish brown bark that can be thick and deeply grooved. You can compare the bark of each tree by putting a piece of paper on the bark and rubbing the paper with a crayon.


By Luis Apiolaza- Wiki Commons

Look on the ground, or up in the branches. Do you see any cones?
The seed cones are greyish brown and have many scales. On each scale you'll notice a "**bract**" that looks like the tail and legs of **mouse**.

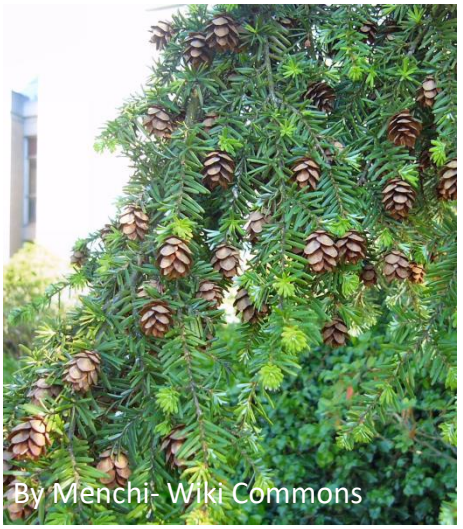
Squirrels and birds like to eat the seeds from this tree. Bears sometimes peel off the bark to eat the sap.

So who's Douglas? David Douglas was a Scottish botanist, who studied trees in the Pacific Northwest. The Latin name of the tree refers to the botanist Archibald Menzies, who travelled to Vancouver island with Captain George Vancouver.

Why do you see mouse tails on Douglas Fir cones? Look up the First Nation's legend about the Mouse, Douglas Fir tree and the Great Forest Fire for answers.

11. Western Hemlock

Latin Name: Tsuga heterophylla



If you see the silhouette of this tree from afar, you will notice its **drooping tip**. Its branches sweep down as if it is a ballerina in a curtsy.

Take a closer look, how do the needles compare to the other conifer trees? The needles are **short and blunt**, not long and spiky. The sprays of needles lie flat, and do not wrap all around the stem. Can you identify needles that grew this year from older needles? These young needles are high in vitamin C. They were used to treat scurvy which often caused the teeth of explorers to fall out.

See the light green tips. They are high in vitamin C.

Take a look at the cones. Are they large or small? Legend has it that the Western Hemlock boasted about getting the largest cone when cones were being given out. Why do you think it got the smallest cones instead?

The bark of the Western Hemlock is dark brown or reddish and deeply grooved. The dark colour is produced by a lot of **tannins** and has been used to turn skins of animals into **leather**. This process is referred to as **tanning**. If you have ever tasted a cup of strong black tea, you will know what tannins taste like. Bitter and “puckery” which means that you pucker your lips when you get a taste.

12. Big Leaf Maple

Latin Name: Acer macrophyllum


By Walter Siegmund- Wiki Commons

Helicopter ride anyone?

Do you recognize this leaf? Where might you have seen it before? Take a close look at the bark. What pattern do you see? You'll also often see mosses growing on the trunk of this tree. What other species might you see growing on the tree trunk? Look around at other types of trees that drop their leaves in the winter. Do these trees have moss growing on their trunks? These types of trees are called **deciduous** trees.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The big leaf maple is **the largest** deciduous tree in Canada, and it produces the largest maple leaves. In the spring, you will see clusters of yellowish green flowers hanging off the branches. The fruit they produce are called samaras or **helicopters**. The long wing of the samara carries the hairy seed through the air. Have you thrown maple helicopters up in the air and watched them fall to the ground? If not, collect the maple helicopters in the fall, go somewhere high up, toss them and watch them twirl to the ground.

The sap from this giant can be used to make maple syrup, but we generally get our syrup from its cousin, the Sugar Maple.

13. Black Cottonwood

Latin Name: Populus balsamifera


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Have you ever noticed a sweet smell in the air when you walk through a stand of Black Cottonwoods in the springtime? The sweet odour comes from **resin**, or sticky "plant glue", that coats the buds of new leaves. Look down and you'll see many casings littering the ground. Pick a fresh one up and feel the stickiness and smell the sweet odour. Bees collect the sticky resin and use it to protect their hives.


By Thereidshome- Wiki Commons

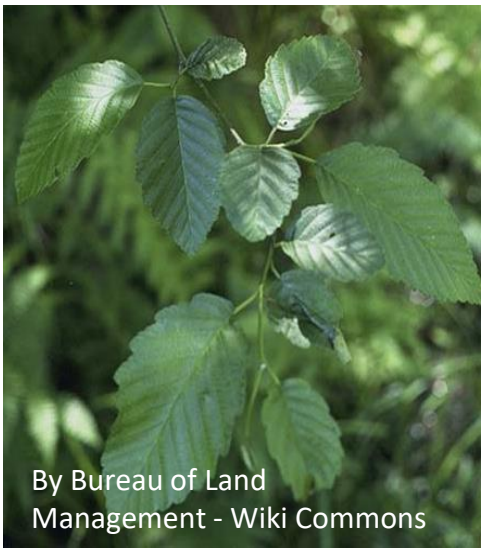
If you visit the stand again in the summertime, you can watch **cotton** float through the air and cover the ground like snow. The cotton carries cottonwood seeds to their new home. Pick up some cotton and look for the seeds. Could you fill a pillow with the cotton?


By Halava- Wiki Commons

Look at the trunk of the tree and you can tell its age. Younger trees have smoother, thinner bark. Older trees have bark that is dark grey and deeply grooved. Can you see the diamond shapes on the trunk? The leaves are dark **green and shiny** with a pale coloured underside. If you watch a stand of cottonwood during a breeze, you'll see the leaves shimmer in the wind.

14. Red Alder

Latin Name: Alnus rubra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If you look around the forest for a tree with red bark, or a tree with red leaves, you won't find the red alder. The bark is thin, light grey, and smooth, and is often covered in white patches. The white patches are lichens which like to grow on the trunks of red alder trees. Lichens do not harm the tree and if you see many lichen patches then you know that the air is clean.


By Noel Zia Lee Wiki Commons

The Red Alder leaves are bright green with **wavy edges**, and they turn yellow, not red, in the fall. Flip the leaves over. Look carefully and you'll see rust coloured hairs on the underside. Is this where the tree's name comes from?

No, to glimpse the red, you would have to make a deep cut in the trunk. The inner bark will turn a rusty red when exposed to the air. Red alder bark was used by local First Nations' groups to make a dark red-coloured dye. But please use your imagination to see the red instead of cutting the tree!

Red alder provides a home in its roots for bacteria, called "actinomycetes". These bacteria are able to take **nitrogen** from the air and put it into the soil. Nitrogen is a very important nutrient that plants need to grow. Look around and consider all the plants nearby the red alder tree that are using this nitrogen.

15. Willow

Latin Name: Salix species

By Andrikkos- Wiki Commons

These trees can range from towering weeping willows with branches perfect for swinging from, to smaller shrubs. The leaves are usually long, and narrow, but some are round, and others are pointy. They produce small fuzzy catkins in the spring. Our native willows are related to the pussy willows which have the fuzziest catkins.

Willows **love water** and they will spread their roots out far and wide to find water. Sometimes the roots of a willow tree are much larger than its stem. So look down when you see a willow and imagine how far it spread its roots to find water.

By Andre Karwath- Wiki Commons

Do you have a **headache** or are you suffering from a fever? If so, you may want to take a closer look at the willow. First Nations people chewed willow bark or made a tea from the leaves. Willows produce a compound called salicin, or salicylic acid. The man-made version of this willow compound is the drug, **Aspirin**.

By Geaugagrrl Wiki Commons

Vist a **weeping willow** when it is **raining** and you'll see why it got its name. Raindrops roll off the leaves as if the tree is **crying**.

16. Beaked Hazelnut

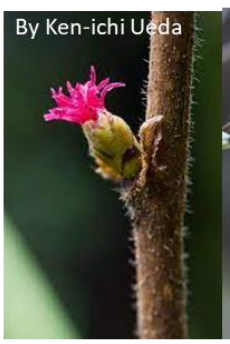
Latin Name: Corylus cornuta

Do you fancy some hazelnuts as a snack? If so, you may have to fight the squirrels for them. **Squirrels** love hazelnuts and in the fall you can watch squirrels collecting and storing the nuts.

Can you see where the name "Beaked" hazelnut came from? Take a close look at the leaves. The leaves are oval with jagged edges. Feel a hazelnut leaf. It's **fuzzy**! The leaves are covered by many long, white hairs. Each leaf is sharply pointed at the tip. The hazelnuts are contained inside a husk that is covered with prickly hairs. What does the husk look like? Does a bird come to mind? Maybe a bird's beak? If you decide to pick some hazelnuts, wear gloves because the **husk hairs** are irritating to the skin. If you want to easily remove the husks, just burry them in the ground. Check back after a few weeks when the husk has rotted away.

Hazelnuts were a favourite food of First Nations people. They enjoyed roasting the nuts or eating them raw. Sometimes they even stole hazelnuts that were gathered by squirrels!

In the early spring, the hazelnut produces male catkins and female flowers. The males are easy to see but can you find the female flowers?



Female flower

Male flowers

17. Mountain Ash

Latin Name: Sorbus sitchensis/scopulina

By Walter Siegmund- Wiki Commons

Are you in need of a magic staff or wand? If so, you may want to find a Mountain Ash. Or **Rowan tree**. These trees were considered to be sacred by the ancient Celtic people of Ireland and Scotland. The wood is very strong and makes excellent walking sticks, although some people believed that you should never cut a Mountain Ash tree for fear of bad luck. The Sitka Mountain Ash is a local species and a cousin of the Mountain Ashes of Ireland and Scotland.

Take a look at the leaves. How do they differ from the other plants? Notice the **teeth along the edge**. Come back in the fall and look again. The leaves turn yellow, orange and red. You may notice **red fruit** in the fall and even in the winter. Many birds feed on these winter treats, but people don't find them to be very tasty. Lice don't like the fruit either, since some First Nations groups rubbed the berries on their heads to get rid of lice. Perhaps it's the Rowan tree's magical powers that the lice are avoiding.

Look at the teeth along the edges. They only go half way so you can call the tree, Sitchensis. If the teeth are on all the edges, you can call it Scopulina.

Photos By Walter Siegmund, Wiki Commons

18. Red Elderberry

Latin Name: Sambucus racemosa


By Th. Voekler- Wiki Commons

It has clusters of white flowers in the spring and red berries in the fall. Is it a Mountain Ash tree? Look closely at the leaves. Elderberry has longer **leaflets that are pointed** in groups of 5 to 7. Mountain Ash on the otherhand has leaflets that are less pointy and are in groups of 7 to 11. Can you tell the difference?


By: Ryan Hodnett – Wiki Commons

The **red berries** are popular with the birds, but don't eat them. The berries will give you a stomach ache if they are not cooked in the right way. Birds have to be careful too. If the berries are still on the trees when it gets very cold, the berries start to ferment. What happens when berries ferment? They produce alcohol. Birds that eat berries (such as Elderberry or Mountain Ash berries) with alcohol have problems flying straight and they sometimes fly right into trees, or buildings. So watch out if you see a wobbly flying bird in the winter.


By Leslie Seaton- Wiki Commons

19. Vine Maple

Latin Name: Acer circinatum


By Tony Perodeau- Wiki Commons

This maple is not as grand as its larger cousin. It is a shorter and some would say "scraggly" tree. Take a look at its leaves. Do they look like maple leaves? If you thought they looked somewhat different, you would be right. Each leaf has **7 to 9 points**, unlike the Big Leaf Maple which has 5 points. Can you count all the points?


By Leslie Seaton- Wiki Commons

The scraggly branches are very **bendable** and have been used to make snowshoes and drum hoops.

Next to its larger cousin, the vine maple appears to be the weaker maple. But don't be fooled. The vine maple is at war with its neighbours. If you look at the base of the tree, are there many plants growing there? The vine maple makes chemicals that other plants don't like. This type of battle is called "**allelopathy**". Can you say allelopathy? "a-lee-low-path-ee"

20. Indian Plum

Latin Name: Oemleria cerasiformis
(also Osoberry)

Indian plum is eager to get growing in the spring. It is one of the **first plants** that you'll see with new leaves and **flowers** after winter. Hummingbirds, butterflies and bees are grateful for this early source of nectar. Greenish white flowers grow in hanging clusters. Take a close look at the leaves. They are **lance-shaped** with smooth edges which means that they are shaped like the tip of a **spear**.

Flip the leaves over to see the leaf veins. The veins should be easy to see and feel on the bottom side of the leaf. Crush a leaf between your fingers. What does it smell like? Does cucumber come to mind?

The fruit sounds tasty, but it's a **bitter** plum that is bluish-black when it is ripe. Deer, bears, and birds don't mind though, and they eat the whole plums which spreads the seeds. But wait…if they eat the plums, how are they spreading the seeds? Here's a hint: what goes in must come out.

21. Red Osier Dogwood

Latin Name: Cornus stolonifera


By Shadowmeld Photography- Wiki Commons

Which tree's bark is worse than its bite? The dogwood of course! This is a deciduous shrub with **red bark**. The leaves are oval shaped with **parallel veins** that arch toward the leaf tip. If you split a leaf crosswise and gently pull it apart, you will see the white threads that run through the veins.


By Superior National Forest- Wiki Commons

How would you describe the pattern of the main leaf veins? Compare this pattern to other leaves.

This plant produces clusters of white flowers which turn into very bitter whitish berries. The dogwood's twigs and small branches are an important source of food for deer in the winter.

So what do dogs have to do with dogwoods? Well, no one knows where the name came from, but it is thought by some that the tree used to be referred to as "dagwood". Dags (daggers, skewers and arrows) were made from the slender stems of similar species in England. Another theory is that people boiled the bark of the tree to cure dogs of mange, a skin disease caused by mites, or tiny spider-like parasites. Yuck!

22. Snowberry

Latin Name: Symphoricarpos albus
(also Waxberry or Ghostberry)


By Thayne Tuason- Wiki Commons

Where do you think the name for this species came from? Yes, the berries! If you break open the berries, the flesh looks like snow. If you step on the berries, they crackle. **But wash your hands if you handle the berries!** The berries if eaten can make you feel sick, and they can irritate your skin.

If there are no berries, how would you identify snowberry shrubs? Take a close look at the leaves. How would you describe them? Are they all the same? Unlike many other species, snowberry leaves can vary from oval to lobed at the base. Can you see the different shapes of leaves? In the spring, you can especially see the differences between the young and old leaves.

This species is technically a **shrub** and it can grow up to 2 metres in height. What's a shrub? A shrub is generally shorter than a tree and it has **multiple stems**, unlike one trunk like a tree.


By monika1607- pixabay

Birds like to nest in snowberry thickets and often eat the berries. Why can birds and small mammals eat berries and not us? It's because of a chemical that the plant produces called an **alkaloid** which is poisonous to us, but not to them.

23. Oregon Grape

Latin Name: Mahonia nervosa

The leaves of this shrub may remind you of Christmas. They are thick, shiny with spiny teeth along the edges and look a lot **like Holly**. But, the berries of Oregon Grape are blue instead of red. Spring is when this shrub steals the show with its many clusters of bright, **yellow flowers**.

The bark inside is also bright yellow and has been used to make a bright-yellow dye. The **blue berries** are tart and full of seeds, so not the best for making jam, unless you like jam with lots of seeds. Most often the berries are used to make jelly rather than jam. Some claim that the berries work as an excellent laxative. So if you try some, be sure to be know the location of the nearest toilet, or have some thimbleberry leaves on hand, just in case.

Why is the shrub referred to as Oregon Grape? It grows well in the State of Oregon, so much so that in 1899, Oregon Grape was named as the official state flower.

By Meggar- Wiki Commons

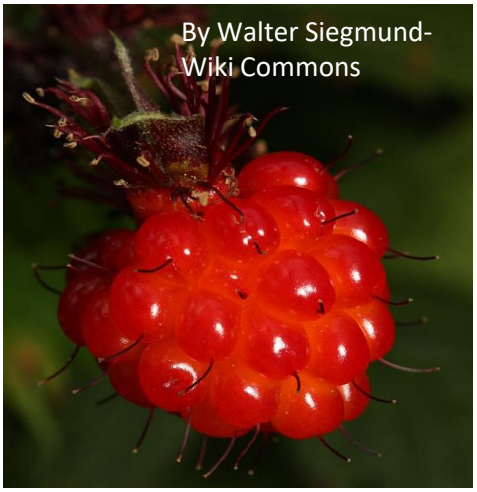
By Joe Mabel – Creative Commons

24. Salmonberry

Latin Name: Rubus spectabilis

Why do you think Salmonberries are called "salmon"-berries? Is it that they are salmon coloured, or that they grow by streams with salmon? What do you think?

How do you know if you are picking salmonberries? Take a close look at the leaves. What do you notice? Do the leaves look like something familiar? If you fold back the third leaflet, you'll see a butterfly.



The salmonberry flowers are among the first flowers that you'll see in the forest in the spring. They are small, and bright **pink** with 5 **petals**. The bright red, or sometimes yellow, **edible berries** resemble a raspberry. But look out…we aren't the only ones who like salmonberries. Bears like salmonberries too. And if you sit quietly and watch a patch of flowering salmonberry shrubs you may even see a Rufous hummingbird feeding.

So why are they called Salmonberries…well some say it is because the berries look like Salmon roe. What is roe? Roe are eggs. Take a look at the picture of salmon eggs. Do you see the resemblance?

Above is a picture of Salmon Roe

25. Thimbleberry

Latin Name: Rubus parviflorus


By Walter Siegmund- Wiki Commons

This berry must be the most Canadian of berries. Take a look at the leaves. What do they look like? **Maple leaves**! Unlike the Big Leaf Maple trees, Thimbleberries grow like Blackberries and Salmonberries.


By Dcrjsr- Wiki Commons

The leaves are soft and fuzzy. What could you use the leaves for? Does toilet paper come to mind? Before you decide, you may also want to know that unlike salmonberries and blackberries, the thimbleberry stems have **no thorns**. So if you are stuck in an outhouse without toilet paper in the forest, reach out for some thimbleberry leaves!


By Jesse Taylor- Wiki Commons

The small, delicate fruit is very tasty! The fruit resembles a **thimble** that you could put on your finger, if you are sewing. Have you ever sewed by hand and used a thimble? The fruit is very high in vitamin C. Different parts of the plant have been used as medicine for stomach problems The leaves have even been used to treat acne (pimples). Not bad for toilet paper.


By Clement Bucco-LeChat - Wiki Commons

26. Himalayan Blackberry

Latin Name: Rubus discolor


By Brewbooks- flickr


By born1945- flickr


By Leslie Seaton- Wiki Commons

Nothing tastes more like summer than a sweet tasty blackberry! Apparently, the English thought so as well which is why the Himalayan Blackberry was brought to North America. The Himalyan Blackberry grew very well in North America and you can now see many areas overgrown with blackberries. Species that are brought to an area from another part of the world and then spread quickly are **invasive species**.

We do have two other blackberry species in our area. Only one of which is from here: The Trailing Blackberry. To tell if you have a Himilayan Blackberry shrub, take a look at the leaves. You'll see that they are in groups of **5 leaflets**. The edges of the leaflets are toothed and the underside is covered with small white hairs. The native blackberry has leaflets in groups of 3 and it trails along the ground. Both species have **thorns**!

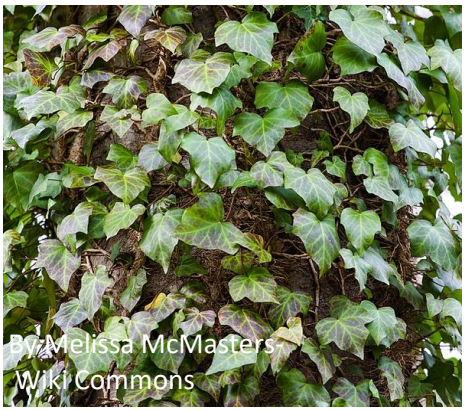
There also is a native black raspberry species. So if you have a "black" berry, how do you know what type of berry it is? Raspberries have hollow centers, whereas blackberries are **solid**.

You can tell if there was a harsh winter if the blackberry leaves turn yellow and fall off. During warmer winters, blackberry shrubs keep their leaves giving them a headstart when they start growing in the spring.

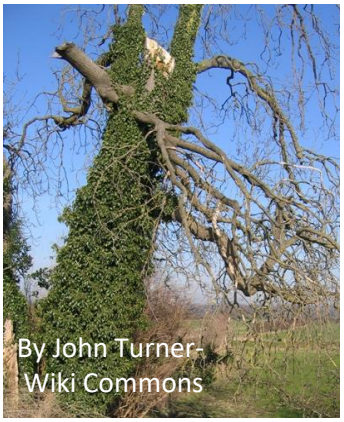
27. English Ivy

Latin Name: Hedera helix

(also called European ivy, common ivy, or just ivy)


By Melissa McMasters- Wiki Commons


By Daderot- Wiki Commons


By John Turner- Wiki Commons

Have you ever noticed trees covered in vines? Or, perhaps a vine growing on the side of a house? It's likely that you saw the incredible **climbing** power of English Ivy. Ivy is often used as a natural way to keep buildings cool in the summer and warm in the winter. It also looks cool!

English ivy is an **evergreen** vine, which means that it doesn't drop its leaves in the winter. It is able to climb because it sends out "rootlets" that cling to walls and tree trunks.

The leaves are dark green and have three to five points. The leaves and berries that Ivy produces are considered to be **poisonous** if eaten. Some people develop serious allergies when they touch the leaves, especially if they are also allergic to carrots! Are you allergic to carrots? If so, don't touch Ivy.

English ivy is another plant that is not from our area, and is **invasive**. Ivy is a problem because it smothers trees and plants and does not allow other plants to grow. Have you seen forest areas covered by Ivy?

28. Wild Chervil

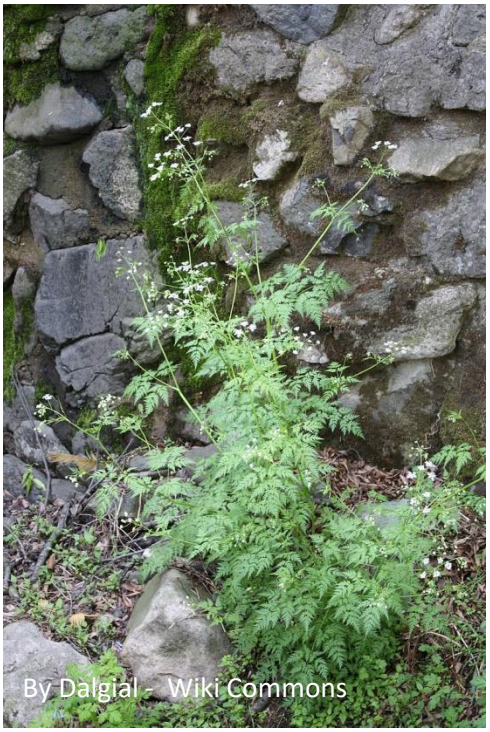
Latin Name: Anthriscus sylvestris
(or Cow Parsley, or Queen Anne's Lace)


By Qwert1234 – Wiki Commons

Is it a fern? Is it a carrot? Is it parsley? It is none of these, but can easily be mistaken for them. It also looks a lot like Poison Hemlock, but it isn't poisonous. Poison Hemlock is a very toxic plant that was used to poison prisoners that were given a death sentence in ancient Greece. The most famous victim of poison hemlock was Socrates. Have you heard of Socrates?


By Dalgial – Wiki Commons

You may notice Wild Chervil growing along roadsides when it is blooming. It produces many **small flower clusters** that are shaped like **umbrellas**. Roadways in the British countryside are lined with the white flowers in May. Wild chervil has now moved from the British countryside to North America and is considered to be **invasive**. Gardeners in North America now spend a lot of time removing wild chervil and leaving carrots and parsley!


By Dalgial - Wiki Commons

29. Creeping Buttercup

Latin Name: Ranunculus repens


By Jason Hollinger- Wiki Commons

Do you like butter? Some people say that if you hold a buttercup under your chin and if your chin turns yellow then you like to eat butter. It was once thought that the **yellow** colour of butter was because of the buttercups. As it turns out cows do not eat buttercups, because they are poisonous if eaten. Buttercups do like to grow in cow pastures where the grass has been "mowed" by the cows.


By Agilmente- Wiki Commons

How do you tell if the plant with yellow flowers is a buttercup? Look at the leaves. They are quite different from other plants. There are 3 leaflets that are clustered together. Draw the shape and compare it to other leaves. You'll also notice that the leaves often have **spots**. The flowers are bright yellow, and have five petals.

Why is it called a **creeping** buttercup? If you tried to pull the plants up, you would see that there are many connected together. Each plant sends out stems along the ground to make new plants. The buttercups then slowly creep across the ground and cover an area.

People thought the flowers of the buttercup were pretty, so they brought the buttercup to North America to grow in their gardens. Now buttercups have managed to escape out of gardens and are considered to be **invasive**.

30. Policemen's Helmet

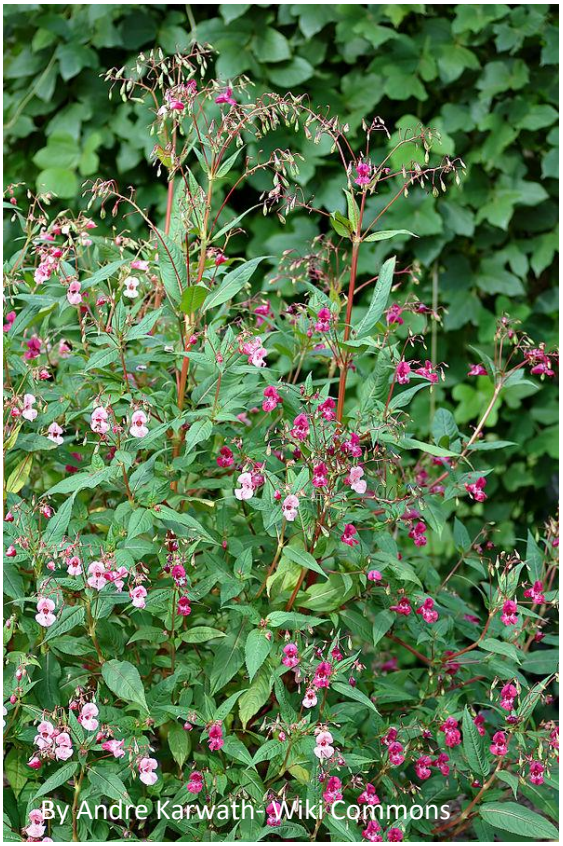
Latin Name: Impatiens glandulifera


By Losch – Wiki Commons

Look Out! These pods explode when touched.

You might want to call this plant impatient! When the plant has seeds, the **seed pods explode** when touched. So watch out! Seeds fly through the air and can land as far away as 7 m from the plant. Walk 7 m and see how far it is.

Policemen's Helmet grows very fast and the nectar of its flowers is very sweet. Can you see bumble bees or honey bees feeding on its nectar? This impatient plant can very quickly cover an area. It is not from British Columbia and it is considered to be **invasive**. If you find Policemen's Helmet, look around and see how much there is. Is it invading your area? Come back in the fall and you will notice a musty smell from the plants.


By Andre Karwath- Wiki Commons

Why is it called Policemen's Helmet? The **pink flowers** are thought to look like the helmets worn by British policemen, or Bobbys. Can you imagine policemen wearing these pink flowers as helmets?


By Jonathan Kington


By Picasa

31. Field Bindweed

Latin Name: Convolvulus arvensis
(also called Morning-Glory)


By Frank Vincentz- Wiki Commons


By Kristian Peters- Wiki Commons

If you ever wanted to watch a plant grow, bindweed might be the one to pick. It grows incredibly fast! The flowers are shaped like **trumpets** and the leaves look like **arrowheads**. But this plant's looks are deceiving. It is a **menace** to gardeners. The vines climb or creep across the ground, up and over other plants, which are often smothered or crushed by the vines. Vines "bind" up farmers' machines when they are harvesting their crops.

Bindweed is not from North America and it is thought to have arrived by accident along with crop seeds. It is considered to be an "**invasive weed"**. We now are trying to figure out how to stop it from growing here. If you do have it in your yard, you can use the strong vines to weave ropes or make crowns. Just be sure to not leave any **root pieces** lying around. A small piece of root can grow into a whole new vine. Also, be sure to not spread seeds around.

32. Japanese Knotweed

Latin Name: Fallopia japonica

You can probably already tell from the name of this plant that the plant is not from our area. It is originally from Japan and people brought it over because it looks pretty when it has flowers. This plant really liked our area, so now it is growing everywhere, and it is **invasive**.

Take a look at the stems of this plant. They look a lot like **bamboo**. The stems also grow very fast. They start to grow in April and can reach 2 m by July. Imagine if you grew that fast!

This plant has caused a lot of problems where it is growing. Roads, and buildings can't stop it. Sometimes you'll see this plant growing right through the road and some people have even found the plant growing up into their houses. Knotweed is an **unwelcome house guest**!

Afterword

In 2017, a group of teachers from Richard McBride Elementary School in New Westminster created a week-long outdoor school experience for their classes. The outdoor school was held at Hume Park in New Westminster. I offered to help with the outdoor school given my interest in science outreach and experience teaching ecology and asked what they would like me to help with. "Plants! We could use help with native plants" is what I was told. At the same time, I was co-teaching with Dr. Sharon Gillies, a course on Plant Ecology to a small group of undergraduate biology students at the University of the Fraser Valley. Sharon had the great idea to create a plant ID guide for the outdoor school. Our students, Shae Turner, Alanna Strangway, and Alexandra Toner took on the task of identifying species at Hume Park and began to outline the guide. Nicole Tunbridge came out to the park to help identify species and provide suggestions for the species descriptions. Then with the editing help of my daughters, I wrote the guide to appeal to an elementary school audience. The Fraser Valley Invasive Species Society helped with the photo credits and with piloting the guide during outreach workshops. I'd like to express my thanks to all those who contributed to the guide.

All the species listed in the guide were present at Hume Park in 2017 and most can also be found at other local parks in New Westminster (E.g. Queen's Park, and Ravine Park) and throughout Metro Vancouver (E.g. Central Park, Stanley Park, Mundy Park, etc). My goal was to include interesting facts that would appeal to a wide-ranging audience and to encourage students to discover the wonder of the native plants found right in their neighbourhoods.

- Alida Janmaat, UFV

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