VanDusen BOTANICAL GARDEN | Bloedel CONSERVATORY | Vancouver Botanical Gardens Association

Self-Guided Tour April 2019
West Coast Wild
Patrick Clarke, VanDusen Volunteer Guide

Please follow the black and white number and arrow signs for this tour. Some areas may not be easily accessible by wheelchair.

As a botanical garden, VanDusen has a large collection of plants from all over the world. Visitors to the Garden are typically most interested in plant species from distant parts of the world. In our enthusiasm for exotic plants, we sometimes overlook the indigenous plants growing all around us, the plants that are the foundation of the unique and splendid environment of the northwest corner of North America. This tour identifies a few of these plants "hidden in plain sight", describes some of their characteristics and how the aboriginal inhabitants of the region used them.

The plants on this tour are located in three specific areas of the Garden: the Cascadia Garden, which is beside the Visitor Centre, the Canadian Heritage Garden in the southwest corner near the Maze and Medicine Wheel, and the BC Habitat Garden in the northwest corner by Forest Lake.

On exiting the Visitor Centre, walk left across the Plaza and toward the wooden bridge. As you reach the bridge, to your left is the northern edge of the Cascadia Garden, which extends along the stream and beyond the Garden entrance. The plants in this garden are mostly native to the southern coast of BC, part of the Cascadia bioregion (named for the Cascade Range), which also includes Washington and other states in the Pacific Northwest.

The most prominent plant you can see in this garden is **1 - Garry oak (*Quercus garryana*).** This tree is found mainly on the Gulf Islands and southern tip of Vancouver Island, especially around Victoria. It is common in coastal meadows south to Oregon, where it's known as Oregon white oak. The Coast Salish people ate the acorns roasted or steamed after soaking to leach out bitter tannins.

Also in the Cascadia Garden is **2 - nodding onion (*Allium cernuum*)**. Nodding onion is often found in the same habitat as Garry oak. When in bloom, the nodding onion has a delicate bell-shaped pink or rose-coloured flower. The bulbs have a strong flavour and were used in pit cooking by the Salish. Once cooked, the onion bulbs could be eaten immediately or pressed into thin cakes for storage.

Cross the bridge and immediately go left at the jade drinking fountain. Near the fountain is a planting of **3 - hardhack (*Spiraea douglasii*).** It is found in riparian habitats such as stream banks, bogs and swampy areas. Coastal aboriginal people used it to make brooms and hooks for drying salmon.

Slightly further along the garden bed is a fine example of a **4 - grand fir (*Abies grandis*)**. These tend to grow in drier, rain-shadow affected areas of the coast. Grand fir can grow to 80m in height. This tree has many uses in traditional medicine. Its pitch was used in canoe making and its branches were used to scent the air indoors.

The next group of plants on the tour is in the Canadian Heritage Garden. To get to this garden, turn from your spot at the grand fir head back toward the jade fountain. Next, turn left to walk past the reflecting Bentall Pool and boxwood-edged Fragrance and Herb Gardens. Walk past the glass house and turn left. You will see a large sculpture of a Minotaur on your right. Walk past this and go right onto the Rhododendron Walk. Go straight along the paved path, keeping an eye out for early-flowering rhododendrons, azaleas, ground covers and spring bulbs. At the end of the walk there is a sign marking the entrance to the Canadian Heritage Garden. As you continue onto this gravel path, immediately on your left is a **5 - vine maple (*Acer circinatum*).** This west coast maple grows as a shrub or small tree and is typically part of the coniferous forest understory. In autumn, its leaves can turn a vibrant red but around Vancouver they are usually yellow. Coast Salish people found the flexible new wood useful for making small tools and ornaments.

Continue along this path further into the Canadian Heritage Garden. You will pass a grove of sugar maples (which are not native to the west coast) on your right. Follow the directional signs to the right until you reach some **6 - arbutus or Pacific madrone (*Arbutus menziesii*).** This plant is easily identified by its evergreen leaves and orange outer bark, which peels away to reveal young, lime-green bark underneath. It grows on dry, sunny bluffs along the south coast, often with Garry oak and Douglas-fir. It has small red berries that birds enjoy, but are not palatable for humans. Southern Vancouver Island and the south coast mainland of BC are the farthest north that arbutus will grow. "Madroño" is the Spanish common name for *Arbutus unedo,* a Mediterranean relative of *A. menziesii* and the source of the name "Pacific madrone". (There is an *Arbutus unedo* in VanDusen's Southern Hemisphere Garden.)

Close by the arbutus is a **7 - black twinberry (*Lonicera involucrata*).** Also called bearberry honeysuckle, the fruit is eaten by bears, small mammals and birds. The shiny black berries have been called "raven's food", "crow berry" and "monster's food" by northwest coast people. The Kwakwaka'wakw people believed eating the berries could cause muteness.

Continue along this path around the Medicine Wheel, following the directional signs, until you reach **8 - devil's club (*Oplopanax horridus*).** As the botanical name implies, getting tangled in devil's club is horrible. Its branches are covered in sharp needle-like thorns that are painful on contact. Devil's club, in spite of its prickly nature, is considered a highly powerful plant and has a large number of medicinal uses in west coast aboriginal cultures, including remedies for rheumatism and tuberculosis.

Now walk back towards the arbutus tree described earlier and follow the arrows to stepping stones, just beyond the end of the rustic wooden fence. These will take you onto a paved walkway. Go right and continue until you reach **9 - western redcedar (*Thuja plicata*)** and across the path **10 – Nootka cypress *(Xanthocyparis nootkatensis*)**. The close proximity of these two allows a comparison. Notice that the bark of western redcedar grows in long, fibrous strips. This makes the bark useful for breaking into threads for weaving baskets and clothing such as hats and capes. The Nootka cypress bark is also vertical but not in such long strips. The branches of the redcedar tend to spread and turn slightly upward. The Nootka cypress branches tend to droop and appear limp. The redcedar is, for coastal aboriginal people, the "tree of life" because it has so many uses, from medicine and clothing to dugout canoes, houses and the carving of impressive story poles. Nootka cypress is used for carving tools, paddles and dishes as well as dazzling works of art.

Proceed down the path until you approach the wooden arch on your left. The top of the arch has Chinese characters that translate to "Meditation Garden". Walk into the Garden and you are surrounded by a grove of very large **11 - Douglas-fir (*Pseudotsuga menziesii*)**. These massive trees were planted just over one hundred years ago during the construction of the golf course that preceded VanDusen's development as a botanical garden. The Douglas-fir and western redcedar are indeed the "money trees" of the west coast, as they were the most sought after for timber in the 19th and 20th centuries. Unfortunately their popularity and value caused significant deforestation and the destruction of most of the original rainforest habitat that they grew in.

Exit the Meditation Garden going back under the arch. Go left to the intersection and then go left again. Continue down this path observing specimens of Sino-Himalayan flora, particularly rhododendron. There are also some camellias that should be in bloom in April.

Walk straight down the paved path until you come to an intersection at the base of a slope with a very large western redcedar in candelabra form standing alone on your right. Head left and follow the signs into the BC Habitat Garden and up the bark mulch path. Near the start of the path is a newly planted **12 - Pacific dogwood (*Cornus nuttallii*).** The flower of this native dogwood is the floral emblem of BC. The white flower petals are actually bracts (modified leaves, as with poinsettia) that surround a central cluster of small flowers. It has very hard wood that makes it useful for tools, hooks, handles and arrow shafts. It is a protected tree in BC and may not be harvested.

Near the Pacific dogwood, in front of the metal sculpture titled "The Last of the Giants" is a small specimen of **13 - Pacific rhododendron (*Rhododendron macrophyllum*).** Rhododendrons are generally native to the Himalayas and central Asia. There are however a few species native to the west coast of North America. In BC, *R. macrophyllum* is found in coastal mountain stands of Douglas-fir and western hemlock. They can have a spectacular floral display in late spring and look like hybridized rhododendrons. There is a well-known group of these rhododendrons in Manning Park, just east of Hope, BC.

You may like to go a little further into the BC Habitat Garden to look at the "totems" or Story Poles. Often called "totem poles" they are more accurately called "story poles" because indigenous peoples of the west coast primarily create them to share stories and preserve knowledge. Poles are also carved to commemorate special events or dates, to serve as mortuary poles or as house posts. The poles you see here, *The Mosquito People* by master carvers Earl and Brian Muldoe, and *Al of the Gispudwada* by master carver Arthur Sterritt, depict origin stories of the Gitxsan people of northern British Columbia.

Go back to the intersection with the "candelabra" redcedar and turn left. On your left you will find **14 - western hemlock (*Tsuga heterophylla*).** This tree, like the redcedar, Nootka cypress, grand and Douglas-fir, is one of the giants of the west coast rainforest. They grow up to 60m tall with a dense canopy. As seedlings they thrive in the dark shady forest understory. Like the other giant conifers, aboriginal peoples had many uses for the tree, including making bedding from the soft boughs, medicinal teas and dyes from the bark. The needles are rich in vitamin C and were boiled to make a tea to treat colds.

Close by the hemlock is **15 - salal (*Gaultheria shallon*)**. This has become such a popular accent in floral arrangements it is now considered endangered in parts of Washington and Oregon. The leaves were used by aboriginal peoples to flavour fish soup or suppress hunger when chewed. The berries were eaten fresh, dried, or mixed with other foods.

This concludes the "West Coast Wild" self-guided tour. If you are curious, on your way back you might seek out the strawberry tree or *madroño* (*Arbutus unedo*) in the Mediterranean garden.

Note: An excellent resource for west coast native plants and source of much of the information in this tour is:
***Plants of the Pacific Northwest Coast* by Jim Pojar and Andy MacKinnon (2016)**