

VanDusen Botanical Garden  
5251 Oak St. Vancouver, B.C.

February/March 2010 Self-guided Tour

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Plants from around the world

This tour is not wheel-chair accessible and may be affected by construction preparations for our new "green" Visitors' Centre. Number and arrow signs are provided to guide you.

This February 2010, Vancouver will be hosting the Winter Olympics and welcoming athletes and visitors from around the world. The Games will extol the attributes, abilities and dedication of participating athletes and particularly celebrate the medal winners. Even though not all competitors will make it to the podium, all will be applauded for their efforts and achievements. We observers will have our favourites, our own choice of "stars".

At VanDusen Botanical Garden, plants from around the world are valued and celebrated for their unique qualities and for the ways in which they enrich our environment and lives. Plants can be competitive too, by nature, in the name of survival. All are worthy of our attention, study and enjoyment but of course, we can't help but have our personal favourites. This tour will focus on a small area of the Northwest American Garden. The native plants to be discussed have proved themselves "winners" for various reasons. Their "star" status increases significantly when their contribution to the life-style and health of early coastal native peoples is examined.

To begin this tour, leave the deck via the ramp to the right. The Northwest American Garden is directly opposite. The first plant on the tour is the 1 - **red-flowering currant (*Ribes sanguineum*)**. "Sanguineum" means "blood-red" or "bloody" and does not do justice to the lovely reddish-pink flowers which appear in early spring. They are particularly attractive to hummingbirds. The blue-black berries that appear in summer are less appealing but did provide fresh fruit for various Coast Salish groups. This plant was eventually introduced to European horticulture by Scottish plant hunter and explorer David Douglas (1798-1834).

Now enter the narrow pathway to your right indicated by the arrow. Unlike the currant which tolerates drier conditions, the 2 - **salmonberry (*Rubus spectabilis*)** prefers moist to wet places. It may appear bare and uninteresting in its winter deciduous form, but its delightful, almost magenta flowers normally appearing in mid-spring, are always a welcome sight. The new stem shoots would have been a particular treat for northwest coastal peoples. They were and still are traditionally peeled and eaten raw or steamed. The yellowish-red raspberry-like berries in May/June were eaten fresh, probably as much for the fact they were a much anticipated change from dried food as that the berries were rather too watery to dry. Although they were often mixed with dried salmon spawn, they were usually eaten fresh with salmon. Interestingly, salmonberry patches were "owned" and cultivated by individuals or families, a practice which underlines the value placed on this food crop.

The dark, juicy berries of 3 - **salal (*Gaultheria shallon*)** were a more preferred staple. The berries were eaten fresh or dried, either as cakes or mixed with currants or elderberries for selling or trading. One group actually chewed salal leaves to suppress hunger. Chewed leaves could also be applied to burns, wounds and insect bites. Leafy branches came in handy for flavouring fish soups, much like we use bay leaves today. David Douglas, who considered it one of his favourite plants, brought salal seed to Britain in 1828. Nowadays, salal berries are enjoyed in the form of tasty jams and jellies.

A plant with holly-like leaves and appreciated by gardeners for its striking winter-blooming clusters of yellow flowers, is the 4 - **Tall Oregon-grape (*Mahonia aquifolium*)**. It produces tart bluish-purple berries that are nowadays used in making jellies and wines. Among aboriginal groups, they were eaten fresh or mixed with sweeter berries, like salal. A non-food related use of the plant involved shredding the bark to create a vivid yellow dye used in basket making.

A little farther down the slope on your left you will see a small tree, a 5 - **Pacific dogwood (*Cornus nuttallii*)**. Its blossoms are BC's floral emblem. The showy creamy-white petals, appearing in late spring, are actually bracts (think *Poinsettia*) which surround a central cluster of small flowers. The word "cornus" means "horn" and aptly describes the tree's hard wood. "Nuttallii" is in honour of the scientist Thomas Nuttall. Nuttall recognized *C. nuttallii* as being a separate species

from the Eastern dogwood, *Cornus florida*, in 1834, which was the year David Douglas, the first European to officially document this tree, died. The Pacific dogwood is now a protected tree in BC and may not be harvested. In the past, however, its wood was used by native peoples to make hooks, handles, bows and arrows. Its bark was also boiled to make a dark-brown dye and was believed to possess medicinal properties.

Watch your footing carefully and walk down between the hemlocks bordering a small set of stone stairs. You will now find yourself at the edge of a little rocky stream bed. With its roots happily in the water are clumps of **6 - skunk cabbage or swamp lantern (*Lysichiton americanum*)**. Appearances are definitely deceiving with this plant. The strikingly beautiful "hooded" yellow flowers appearing in the spring, camouflage a skunk-like odour produced to attract pollinating flies. During time of famine, however, this plant would have been a life-saver. It was made edible by steaming or roasting. Its leaves, moreover, were regularly used as a lining material for such things as baskets and steaming pits.

Turn a bit to the right as you leave the upper region of the stream bed via some large stepping stones. A plant with the ability to instill a mixture of aversion and curiosity is **7 - devil's club (*Oplopanax horridus*)**. Also called, "attack maple", it is armed with nasty spines on its stems and on the underside of its leaves. These, however, do little to deter bears, who relish the shiny red berries produced in summer. And considering that is still an important source of medicine among BC coastal aboriginal peoples, it has not managed to keep humans at bay, either, except perhaps for the cautious hiker. As a matter of fact, its very appearance was considered a powerful protection against evil. The roots and inner bark of Devil's Club were used to treat a variety of ailments of the digestive tract as well as arthritis, rheumatism, TB, measles and diabetes. A tea is still used today in the treatment of the latter.

As you begin to follow the path beside the stream, you will see un-branched, stiff stems standing upright at the water's edge. Hidden within the cell walls of the **8 - scouring rush (*Equisetum huemale*)** is silicon dioxide, which gives the plant an abrasive quality when cut open. This is particularly useful for cleaning pots and dishes when camping! This abrasive characteristic was utilized by coastal peoples to polish wooden objects from large canoes to dishes and arrow shafts. The Latin "equisetum" is the basis for the common name "horse-tail". This species, however, was given the additional name of "scouring rush" by Europeans, who used it to scour utensils made of wood or pewter.

Close to the scouring rush are some low-spreading evergreen shrubs or **9 - bog-rosemary (*Andromeda polifolia*)**. These may appear to be innocuous little plants, but they are dangerous if ingested. They contain a chemical andromedotoxin, which can cause a drop in blood pressure and severe respiratory and intestinal problems. Sheep are particularly susceptible.

Another plant that contains this chemical is **10 - western bog-laurel (*Kalmia microphylla* subsp. *occidentalis*)**. Peter Kalm, for whom this plant is named, was a student of Karl Linnaeus, the famous 18<sup>th</sup>-century botanist who developed a system for classifying plants and animals that is still used today. The western bog-laurel is often confused with **11 - Labrador tea (*Ledum groenlandicum*)**, the leaves of which are used both as a beverage and a medicine to treat sore throats and colds. The bog-rosemary, bog-laurel and Labrador tea often grow in the same vicinity, so to avoid confusing them, especially during non-flowering months, check the undersides of their leaves. Only the Labrador tea leaves have rust-coloured hairs underneath. Nevertheless, the Haida people did boil bog-laurel leaves along with Labrador tea leaves to make a medicinal drink. An infusion made from boiled bog-laurel leaves was also used to treat open wounds and skin ailments.

To the right of the path is another shrub valued by many coastal peoples for its berries. These were eaten fresh, with oil or dried in cakes. The **12 - evergreen huckleberry (*Vaccinium ovatum*)** is unique in that its berries, produced in early fall can stay on the bushes well into December. Their flavour is said to improve after the first touch of frost!

This has been but a short look at some of our indigenous plants and their contribution to our province's history. To view more plants native to Canada, please enjoy the remainder of the Western North America Garden and consider visiting our Eastern North America and Canadian Heritage Gardens. Maps are available from the cashiers.