

SELF-GUIDED TOUR

THE GARDEN IN SEASON: APRIL 2023

Livingstone Lake and Heron Lake

Contributor: Kelley Crawford, VanDusen Volunteer Guide

Please follow the black and white number and arrow signs for this tour.

Welcome to VanDusen Botanical Garden. This self-guided tour will take you on a stroll around Livingstone Lake and Heron Lake. Livingstone Lake was named for Bill Livingstone, VanDusen's first Superintendent.

The lakes in the garden have different elevations so that the sound as well as the sight of the connecting streams and waterfalls contribute to aesthetic pleasure. The water courses, streams and lakes collect the natural drainage and channel it into the main lake system. Most of the year, natural drainage is enough to keep the lakes filled. In the summer, especially with our dry summers, the evaporation would be made up from the main water supply which feeds into the upper lake.

To the right of Livingstone Lake, just at the bottom of the stairs is a **1 – swale**. Swales are used to convey stormwater but also to help treat runoff to reduce pollutants. Swales are not deep, like ditches, they gently slope and are wider than they are deep. The swale in front of you has reeds, grasses, and rushes to help with the decontaminating process.

Step down the stairs and turn right down the slight ramp. At the bottom of the slope take a hard left following the path that will take you beside Livingstone Lake. The first trees you will see on both sides of the path are **2 – ginkgo (*Ginkgo biloba*)** trees. The ginkgo or maidenhair trees are one of the oldest living tree species. They also produce popular supplements in Canada, U.S. and Europe for treating blood disorders and memory issues. A single ginkgo tree can live as long as 1000 years and can grow as high as 37 metres. Ginkgos are resistant to disease, cold weather and even radioactivity. The fruit is inedible and smells very bad, but the cooked seeds are safe to eat in small quantities.

As we follow the path look across the lake at the peninsula. On the flat rocks, close to the water's edge, if it is a sunny day, you may see several turtles basking in the sun. These turtles may be red-eared slider turtles. It is believed they were once household pets that were "set free" in the lake. The ones in this lake are about the size of a large human hand.

Continuing along the path you will come across **3 – goldenrain tree (*Koelreuteria paniculata*)**. The leaves emerge with pinkish-purple colour in spring and turn bright apple-green as they mature. The flowers follow the leaves. Following the flowers are papery lantern-like seed capsules which in turn become rusty brown.

Follow the same path beside the lake until it comes to a fork. Take the path to the left. On your right, before you come to another fork in the path you will see an **4 - Atlas cedar (*Cedrus atlantica*)**. This cedar is native to Morocco and Algeria. It grows 30 – 35 meters. Take a close look at the needles on this tree. Compare it with the **4 - western redcedar (*Thuja plicata*)** which is located just a few steps along the path to your left. You will notice the foliage on this tree is very different than the Atlas cedar. Indeed, this tree properly belongs in the cypress family. The indigenous people of the Pacific Northwest used all aspects of the tree for making masks, totem poles, dishes, dugout canoes, and the roots of the tree which were woven into leakproof baskets. It grows in low to mid-elevations along the BC coast and in wetter parts of the southern British Columbia interior. It can grow 70 meters high and over 4 meters in diameter. It has been known to live up to 1,500 years.

Retrace your steps to the Atlas cedar and continue following the path leading towards the Sequoia grove. As you walk look to your left at the **5 – Judas tree (*Cercis siliquastrum*)**. The common name was derived from the belief that Judas Iscariot hanged himself from this tree after he betrayed Jesus. It has purple pink flowers which appear just before the leaves around April.

Further along the same path you will see the grove of **6 – giant Sequoia trees (*Sequoiadendron giganteum*)**. They are found in Oregon and Northern California and can grow 90 metres tall and become 17 metres in diameter. The wood is resistant to decay but due to being fibrous and brittle, it is generally unsuitable for construction. The oldest known tree, called General Sherman, is about 2300 - 2700 years old. Unfortunately, these trees are listed as endangered due to drought, global warming and current fire suppression techniques. The fire suppression technique builds up dead biomass which produces more intense wildfires.

Turn left on the path that runs beside the Sequoia grove. Look to your right as you head up the path. You will see several **7 – *Cornus* ‘Eddie’s White Wonder’**. In spring these trees have a glorious display of white bracts that are very similar to British Columbia’s native dogwood trees. They are a cross between Pacific dogwood (*Cornus nuttallii*) and the flowering dogwood (*Cornus florida*). They are a little more robust than Pacific dogwood which is prone to disease.

As you travel up the paved path you will come upon our Japanese maple tree display. The maple on your right is **8 - trident maple (*Acer buergerianum*)**. The leaves of the tree have three lobes, resembling a trident. In this area you will see both dwarfed trees and upright maple trees that have grown to about six metres.

In Japan during The Edo Period (1603 – 1867) at least 250 Japanese maple cultivars were developed. Unfortunately, during the two world wars many of the cultivars vanished due to the need for farmland and firewood. However, they have made a resurgence and currently about 500 named cultivars exist in Japan.

Leaving the paved path, turn left on the mulched path and head towards Heron Lake. You will notice some **9 – Japanese maples (*Acer palmatum*)**. Take a peek under the leaves to see the complex structure of branches that add interest to the trees in the winter months.

Follow the path to your right, following beside Heron Lake. You will come to another example of a **10 - Japanese maple (*Acer palmatum* ‘Shishigashira’)**. This tree stands taller than the dwarf maples and has a smaller leaf. The limbs are straighter than the dwarf maples. Continue following the path that will lead to a little bridge. Take time to view the lake with its weeping willows, Japanese maples and large leafed gunneras. It reminds one of a Monet painting.

Climb the rock steps and you will come out on a grassy area with a grove of majestic **11 - Douglas-fir trees (*Pseudotsuga menziesii*)**. Indeed, Douglas-firs are in the pine family. They grow from 20 – 100 metres tall and can be 2.4 meters in diameter. They can live for 1,300 years or more. These trees were planted in the 1970s so they are still quite young. Take a close look at the bark of these trees. You will notice it is very thick which makes it one of the most fire-resistant trees native to the Pacific Northwest. Turn right heading up the slope past the sculpture. As you near the path you will come across a grove of **12 – limber pine (*Pinus flexilis*)**. Both the common name and the Latin names refer to the flexible nature of the wood of this tree. Having flexible wood is an excellent adaptation for a tree that must deal with heavy snowpack and ice.

Turn left on the paved path and follow it past the Heather Pond. Turn left at the path that goes by the Scottish croft. Both **13 - heath (*Erica*)** and **14 - heather (*Calluna*)** grow in this garden. Compare the heath foliage and heather foliage. Heath blooms in late spring and has needlelike leaves, while heather needles are more scaley. Following the arrows to the grotto which will take you back to Livingstone Lake. Head towards the lake following the lower path around the lake. At the beginning of the path there is a **15 – gunnera (*Gunnera manicata*)**. The leaves will grow to about 120 cm (4 ft.) tall with a spread of about 3 by 3 metres. This plant could have been eaten by triceratops as they have been dated back 93 million years.

Further down the path on your right is the **16 – medlar (*Mespilus germanica*)** tree. The flowers bloom in late spring, followed in autumn by fruit that may resemble a “monkey’s bottom” and must be bletted (over-ripened) before being eaten. Continue to the end of the path where two dwarf Japanese maples frame the path. Much of the garden is left for you to explore. Enjoy.