

Please follow the black and white number and arrow signs to take this tour. Also watch your step as some areas may be slippery when wet. Parts of this tour are not wheel-chair accessible.

This is the time of year when our anticipation for spring is rewarded by the sights of renewal in the garden. In a farewell to winter, this tour will salute a few of the trees that have provided such structural and visual beauty at VanDusen during these cold and grey months.

To begin this tour, walk towards Livingstone Lake. Take a moment to admire the vistas from here and the variety of deciduous and evergreen flora outlining and accenting the Lake. Now turn left onto the pathway leading to a wooden bridge. On your left is a true curiosity. Here is a Douglas-fir, but as you will notice it does not stand straight and tall. This is a **1 – weeping Douglas-fir (*Pseudotsuga menziesii* 'Pendula')** a mutation of garden origin. You will see stately, much older Douglas firs later in the tour.

Continue walking straight ahead past the jade water fountain on your left and the bed of dormant grasses on your right, to a fine example of a **2 – Serbian spruce (*Picea omorika*)**. This distinctive tree is native to the Drina River Valley, which cuts its way through Serbia, Bosnia and Herzegovina, where only small, isolated pockets of *Picea omorika* remain. It is a fairly popular garden conifer, however, and is grown in gardens in Europe and North America. At VanDusen we have at least 8 specimens. At first glance it resembles a drooping Douglas-fir with branches that curl up at the tips. Like Douglas-fir, but unlike true firs (*Abies* species), spruce trees have pendant rather than upright cones. Have a look at the way the needles are twisted on the branches to reveal a two-toned grey-green colour. Now continue along a little farther to the animate form of the **3 – weeping giant sequoia (*Sequoiadendron giganteum* 'Pendulum')**. This slender version is a descendant of a mutation found on a tree in France. Its branches grow close to its trunk, creating a sinuous silhouette. Your eyes will no doubt also be drawn to emerging bulbs and creeping forget-me-not (*Omphalodes verna*) on either side of this path, their colours contrasting so delicately with the dark evergreens in these beds.

At the next crossroads, turn left and follow the curved rock wall on your right. Continue up the stone steps and take a moment to appreciate the formal design of the Rose Garden. Two bronze busts look out over the floribunda and hybrid tea roses which will be in their full glory come summer. On the left is David Douglas, a 19th Century intrepid plant hunter for whom our native Douglas-fir is named. On the right is Carol Linnaeus, the 18th Century Swedish physician, botanist and taxonomist whose binomial system of plant nomenclature is still used universally. Now continue by heading up the stone steps leading under the stone arch. As you follow the path, you will soon come upon a **4 – Himalayan pine (*Pinus wallichiana*)**. Considered to be one of the most beautiful of pines, the typical habitats for this species are mountain screes and glacier fore-lands, such as those of the Himalayas. It is a commercial source of turpentine and is more resistant to air pollution than other conifers. Now stay on this path until you come to three interconnecting paths. Turn right here and soon you will come to the unusually shaped **5 – snake-branch spruce (*Picea abies* 'Virgata')**. This is a cultivar of the Norway spruce, and is useful as a windbreak or screen.

As you continue along the path a short distance, you will arrive at a grassy area on your right. Walk across the patch of grass that cuts between the beds and keep right. The white stone carving titled *Developing Form* sculpted by Michael Prentice, stands in sharp contrast to the dark and towering cluster of **6 – Douglas-fir (*Pseudotsuga menziesii*)**. Take some time to explore this area by walking amidst these wondrous trees. They are golf fairway plantings about 100 years old, reminders of when the Shaughnessy Gold Club leased this land (1910-1960) from the Canadian Pacific Railroad. These are examples of Coastal Douglas-firs. Their common name is misleading, since they are not true firs. Ridged bark helps them to survive moderate surface forest fires. Their wood is used commercially in construction because of its weight-bearing capability. Nestled below this stand of trees is a special piece of art on loan from the Bill Reid Gallery. *Black Eagle* is a fiberglass cast of *Lootas (Wave Eater)*, the wooden and polychrome ocean-going dug-out canoe Mr. Reid was commissioned to create for Expo '86. Look closely at the design. Can you recognize the eagle, which represents one of the social groups of the Haida people?

Follow the arrows pointing to a rock bridge. Please cross this cautiously. You are now entering the Heather Garden. Mr. Roy Forster, O.C., VanDusen's first Curator and Director, was inspired to create this area after a visit to Wales. The word heather comes from "living on the heath" and is used to describe all heathers, but technically, *Calluna vulgaris* in all its variations are heather and *Erica*, which is a closely related genus of plants, is referred to as heath. Sheep apparently prefer to munch on *Calluna* since its edible parts are scaly as opposed to spiky, as in the case of ericas. There is always something blooming in this garden area throughout most of the year. The colour is subtle rather than striking, like curving brushstrokes through the rolling green landscape. Take a closer look at the variations among the plants artfully interspersed with

dwarf conifers.

Now head towards the stone Grotto. Before entering the tunnel look up to your right. You will see three large impressive pines. When you have exited the grotto, take a closer look at one of these, a lovely **7 - ponderosa pine (*Pinus ponderosa*)**. Its delicate but long needle clusters and airy silhouette contrast noticeably with the heavy, lumpy looking black basalt rocks, originating from False Creek, that form the grotto. This is the only native BC pine with bundles of three needles. It is generally found in the southern interior of this province and can live up to 600 years. On warm sunny days the bark of mature trees gives off a vanilla-like scent and its light wood is used in construction and furniture building.

Follow the path leading down to your left. As you reach the zig-zag bridge, you will see an **8 – umbrella pine (*Sciadopitys verticillata*)**. This is a living fossil dating back to the upper Triassic period. Its water-resistant wood has been used for boat-building in Japan, to which it is native and where it is considered a sacred tree. Its common and botanical names refer to the whorls of leaves that resemble the spokes of an umbrella. As you cross the bridge, enjoy the vistas over Heron Lake to your left and Livingstone Lake on your right. All water features here were artificially made as part of the Garden's original design. Excavations to create these lakes revealed the ancient sea-bed that covered most of the lower mainland at least 12,000 years ago. Amazing, when one realizes that this Garden is now 400 feet above sea-level.

Another tree that has deep roots in the past is the **9 – monkey puzzle tree (*Araucaria araucana*)**. This living fossil is the national tree of Chile, one of the few places it survived following the glacial periods. It is named for the indigenous Araucano people (now known as the Mapuche) of the Araucanía Region of south-central Chile, who harvested its edible seeds. While rare today, monkey puzzle forests were abundant 200 million years ago when there was more CO₂ in the air. In higher concentrations of atmospheric CO₂, monkey puzzle trees develop fewer stomata (pores) on their leaf surfaces. Today, scientists are using stomata counts from herbarium and fossil specimens of this species to reconstruct ancient climate change patterns. The monkey puzzle tree was introduced to cultivation in Europe and North America by Archibald Menzies who brought seed from Valpariso to England in 1795.

Follow the paved path to the graceful **10 – southern beech or Coigüe (*Nothofagus dombeyi*)**. Also native to Chile, this species often forms mixed forests with monkey puzzle trees. Its leafy evergreen boughs are used for thatching and its wood is considered durable, easy to work and decay resistant, ideal for furniture, floors and buildings.

You will soon come to a tree native to our area and hence out of place in this Southern Hemisphere Garden, although it allows for a useful comparison between what is a true cedar and what isn't. Here is the misnamed **11 - western redcedar (*Thuja plicata*)**. Valued commercially for its fragrant, decay- and water-resistant wood, this tree was given the common name of "cedar", in reference to the ancient and well-known cedar of Lebanon. However, it was considered significant by B.C.'s aboriginal peoples long before settlers arrived. For them it was the Tree of Life, a source of food, medicines, clothing and building materials. To view a true cedar, **12– cedar of Lebanon (*Cedrus libani*)**, continue to the end of the path, turn right and then left at the arrow. Note its unique bark, pine-like clusters of needles and shape. Then look back at our western redcedar and observe how different the two trees are.

A few steps away is the **13 - Italian stone pine (*Pinus pinea*)**, cultivated in the Mediterranean for at least 6,000 years. This is the tree from which one harvests pine nuts. The cones take 36 months to mature, which is longer than for other pines. Continue along the path. You will see a number of *Helleborus × hybridus* that are probably in bloom by now. Their leathery, unusually shaped leaves and long-lasting flowers make them a special addition to the winter/spring garden.

Keep following the path to the lawn. At the edge of the water is a **14 - Turkish filbert (*Corylus colurna*)**. Native to Southeastern Europe and Southwestern Asia, this species of hazel flowers early in spring before leaves appear. Its nut is of little commercial use, but it is important as a non-suckering rootstock for common hazel cultivars which produce commercially viable fruit.

You are near the end of the tour. You are at Cypress Pond and its floating bridge. Come spring, the swamp or bald cypress trees (*Taxodium distichum*) that grow at this end of the pond, will be decked out in the most amazing lime-green new needle growth. These trees are related to redwoods and are classified as deciduous conifers because their needles are thin-skinned and can't survive cold winters.

Enjoy your walk over the bridge. To return to the Visitor Centre, keep walking straight along the paved path. Thank you for taking this tour. VanDusen Botanical Garden spans 55 acres and there is still much for you to explore!