

Please follow the arrows and numbered black-and-white signs marked “SELF GUIDED TOUR” as you follow the information below.

Your first sign can be found at the edge of the Plaza after you exit our Visitor Centre. Your walk should take 60 minutes as we explore the community of botanical gardens and the role they have played in conservation. Biodiversity is one way that botanical gardens differ from “display” gardens of colourful annuals. Biodiversity recognizes that all living things (including insects) are connected. Completely. The survival of insects, mice and other critters is linked to the survival of the human species. No insects - no humans, no beer, no food.

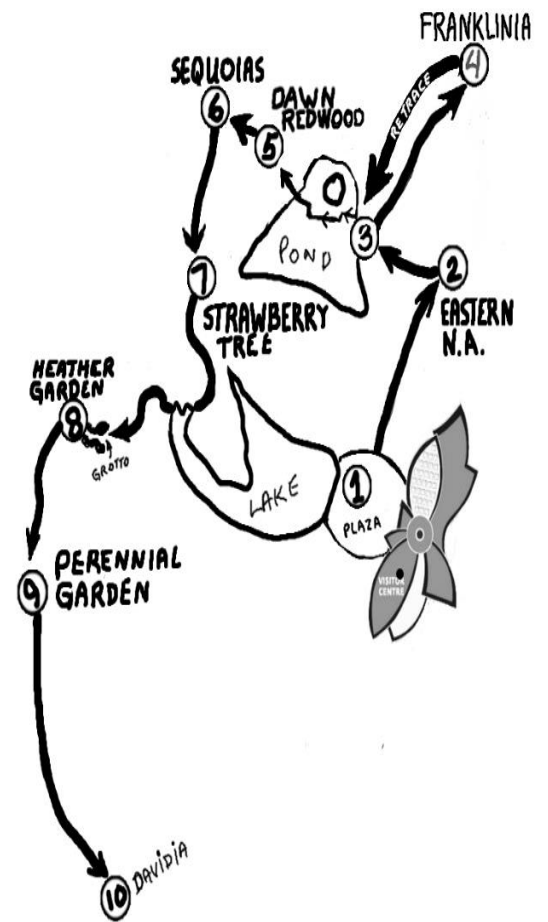
These days, visitors often ask “Which plants attract bees or butterflies?” or “How will my plants improve biodiversity around my home?” or “How can my plants improve the planet?” Some visitors arrive with the curiosity of citizen scientists, finding data that can only be found in the diversity of a botanical garden. They log sightings of birds, bees and other insects to contribute data to research projects all over the world.

#1 - Livingstone Lake: Here the diverse balance of life in nature plays itself out on the water feature at the edge of the plaza. The lake provides habitat for water lilies (white *Nymphaea* 'Gonnère', dark pink *Nymphaea* 'Escarboucle', and yellow *Nymphaea* 'Colonel A.J. Welch'), which shelter insects during all or part of their life cycle and provide habitat for turtles (Red-eared Sliders) and carp which feed eagles, hawks, ravens, and coyotes. Leave the Plaza to your right, down the short ramp. Follow the gravel path to its first fork. Look for **#2 – Eastern North American Garden**. Note the light through the trees. Our first Director and Curator, Roy Forster (also a landscape artist), envisioned the light of a deciduous hardwood forest and re-created it here in the same way that a painter will capture light in a landscape painting.

Follow the arrows to the edge of the floating bridge at **#3 – R. Roy Forster Cypress Pond**. Pause at the small clearing just before the bridge. Here, fall colour will be provided by the bald cypress (*Taxodium distichum*), a unique member of the Cypress Family. This tree differs from its cousins the coast redwood (*Sequoia sempervirens*) and the giant sequoia (*Sequoiadendron giganteum*) in two ways. Native to the swamps of Louisiana and Florida, the bald cypress drops its needles each fall, hence the name “bald.” At the base of each tree, note the wooden bumps. These are called knees and are a special kind of root structure called pneumatophores, meant to rise out of the water and supply submerged roots with oxygen. This allows bald cypress to thrive in swamps and other areas prone to flooding.

Now turn right and follow the path to a cross-road. Go straight, cross over some grass and a paved path and head across more grass to a large bed with **#4 - Franklinia**. The two small trees were first observed by Botanists John and William Bartram in Pennsylvania in October of 1765. Today, these and all other *Franklinia* are descended from John Bartram's original *Franklinia alatamaha* seeds. William Bartram assigned what he described as a “rare and elegant flowering shrub” to a new genus in honor of his father's great friend Benjamin Franklin. In 1765, wild *Franklinia* trees accounted for at most three acres, so it was the efforts of the botanists that kept the species alive to be shared by botanical gardens around the world. The last wild *Franklinia* was noted in 1803. Today, the species is found growing in hundreds of botanical sites worldwide. Botanical gardens have come to be the repository of many plants and trees threatened by industry, natural disaster, urban development, and climate change. Conservation remains one of the important functions of every botanical garden.

Now retrace your steps, turn right and cross the bridge. Walk straight ahead. To your left you will soon see **#5 - dawn redwood (*Metasequoia glyptostroboides*)**. This tree could serve as the poster child of the botanical garden community. Often referred to as a “living fossil” the *Metasequoia* (meaning “like a



sequoia”) came by its reputation legitimately. In 1941 it was identified as a new species by a Chinese botanist studying *Metasequoia* fossils that were over 150 million years old. The fossils had been found on Ellesmere Island in northern Canada and in the badlands of South Dakota. For three years, the tree was believed to be extinct, until a forester doing a timber survey in Lichuan County in Hubei Province identified a living example of the tree in 1944. That original tree was part of a shrine known to locals as “Shui-sa”, or “water fir.” Eventually seeds were collected for study at the Arnold Arboretum at Harvard, at Hillier Gardens in the UK and at the Hunewell Estate in Massachusetts. Seeds shared by botanical gardens extended the range of the dawn redwood, which now grows worldwide. At VanDusen, our largest collection can be found in the Meconopsis Dell of our Sino-Himalayan Garden. Based on modern DNA analysis, *Metasequoia* is placed in the subfamily Sequoioideae of the Cypress Family, Cupressaceae, along with *Sequoiadendron giganteum* and *Sequoia sempervirens*.

As you emerge from the bamboo at the paved sidewalk, you will find a grove of a dozen prime examples of **#6 - *Sequoiadendron giganteum***. This is VanDusen's nursery of giants. These babies are only about 50 years old. Giant sequoia once grew as far north as Alaska, but their range shrank greatly during the last Ice Age so they are now native only to regions of California. In addition to these, Vancouver has dozens growing throughout the city.

From the sequoias, proceed to your left along the paved path into the Mediterranean Garden. Another important characteristic of a botanical garden is the grouping of plants by region and sometimes by micro climate. **#7 - Strawberry tree (*Arbutus unedo*)** is native to the Mediterranean region and western Europe. In southwestern Ireland it is known as the “Irish” or “Killarney strawberry tree.” The red berry is made into jellies by some cooks, but the “unedo” of the botanical name refers to a quote from Pliny the Elder (born 23 CE) who scornfully observed that you can only eat one of them, “unedo,” due to the bland flavour. Note that the strawberry tree is surrounded by plants that grow in a similar climate with dry summers and wet winters.

Follow the arrows along the paved path. Cross the zigzag bridge. Climb the sharp rise on the far side of the bridge. Enter the grotto emerging at **#8 - heath (*Erica*) and heather (*Calluna*)**. These decorative plants are members of the large Heath Family, Ericaceae, with more than 4000 species in over 120 genera. Included are such distant cousins as cranberry, blueberry, rhododendrons, *Pieris* and even Pliny's bland-tasting strawberry tree you met earlier.

Follow the path out of the Heather garden across the small stone bridge to the paved walkway. Turn left to **#9 -The Perennial Garden**. In addition to studying plants and growing conditions, botanical gardens study gardening techniques, technologies and plant presentation. Note the formal yew hedge (*Taxus baccata* ‘*Fastigiata*’) that serves as a backdrop to the beds to your left. A hedge is a common component of formal perennial gardens. In 1890, George Nicholson, curator of the Royal Botanic Gardens at Kew, conceived a perennial-only garden with an evergreen backdrop. This style was the result. Traditional perennial gardens require a lot of garden space so they can usually only be viewed from one side. To eliminate shading and restricted viewing, island beds such as the ones you see here were introduced in the 1950s.

Proceed along the paved path through the weeping beech archway. Transit the edge of the great lawn to the intersection of the Rhododendron Walk. **#10 - Dove tree (*Davidia involucrata*)** is also known as the “handkerchief” tree because of its white, tissue-like bracts. This is the only known member of the genus *Davidia*, named after the first European to describe the species. A Catholic missionary, Father Armand David was a naturalist with connections to a network of botanical researchers in Europe. During his assignment in China in the 1860s, he encountered a large specimen of this unusual tree and wrote about it to his European connections. A plant hunter, Ernest Henry Wilson, (trained in plant identification by Kew Gardens and the commercial nursery firm of Veitch) was sent to China to collect seeds and specimens of horticulturally interesting plants, including what was eventually named *Davidia involucrata*. Fr. David's tree had been felled for materials to build a monastery but the plant hunter discovered many examples of the tree and was able to collect seeds. This brings you to the end of our walk. You can proceed up the Rhododendron Walk to the maze, or follow the path through our collection of species rhododendrons in the Sino-Himalayan garden. Both directions deliver good reasons to return to VanDusen Botanical Garden.