
Please follow the black and white number and arrow signs.

With more than 50 documented plant collections from around the world, VanDusen Botanical Garden is a living museum, promoting awareness of plant biodiversity and conservation. We grow more than 100 rare and endangered plant species and varieties, and contribute to global *ex situ* conservation efforts, working with organizations such as Botanic Gardens Conservation International.

From the Visitor Centre, turn left toward the wooden bridge at the foot of **Livingstone Lake**. From here you have a perfect view of the lake and Garden beyond, and may even see turtles sunbathing or the resident heron fishing. There are close to a dozen water features in the Garden, created as part of the original Garden design, nearly all connected, with water circulating throughout the system.

Stroll ahead to the first path on your right. The tall **1- reed grasses** (*Calamagrostis × acutiflora*) provide a wonderful backdrop for the delicate **2-mosquito grass** (*Bouteloua gracilis*), a North American native. Both are members of the Grass Family (Poaceae).

Return to the main path and continue along to the pool on your left with its collection of hardy water lilies. The ceramic pots on this terrace feature plants typically found in bogs, including several carnivorous plants native to eastern North America. Bogs are nutrient-deficient environments and in order to obtain the nutrients they need, carnivorous plants capture insects and digest them. The **3-pitcher plants** (*Sarracenia* species) you see here secrete nectar to attract insects, which fall into the tube-shaped leaf or pitcher. The inside of the pitcher is slippery with downward pointing hairs that prevent its victim from escaping. The insects are then slowly digested by enzymes at the bottom of the pitcher. These pitcher plants are hardy and overwinter in these pots, planted in a mixture of equal parts sand and peat moss.

Continue straight ahead to the **4 - Herb Garden** on your left. In North America, herbs are used mainly in cooking, but historically they were used medicinally and some were even believed to ward off evil spirits. In many parts of the world, herbal medicine is still the primary form of health care and it is regaining popularity in Western cultures. Ancient Greeks believed in the Doctrine of Signatures: that the features of the plant indicated its use. For instance, stinging nettle was used for skin problems and the heart shaped violet for cardiac ailments. Fennel was stuffed into keyholes to protect against the Devil, and mint, representing hospitality since Roman times, was rubbed on the table to clean and scent the wood.

Follow the path to your right to the **5 - golden catalpa** (*Catalpa bignonioides* 'Aurea'). This tree was planted to mark the opening of the Garden in 1975. Also called the Indian bean tree, it is invasive in the southeastern United States, but our climate is too wet for the species to thrive here. In spring, the tree bears large clusters of trumpet shaped, white flowers which develop into long, skinny, bean-like fruit in autumn.

Continue to your right, with the **Formal Rose Garden** on your left, and walk straight ahead past the low curving stone wall into the **Black Garden**. Here plants with dark, nearly black, foliage or flowers are combined with plants with contrasting chartreuse or lime green foliage to create a dramatic effect. On the right, the dark red **6-stonecrop** (*Sedum telephium* 'Postman's Pride') is strikingly beautiful, as is the **7-Kamchatka bugbane** (*Actaea simplex* 'Brunette') to your left, with its dark foliage and feathery white plumes of tiny flowers. The lovely dark red hips of the **8-redleaf rose** (*Rosa glauca*) along the right provide colour all winter long. Rosehips are also a great source of Vitamin C, with one cup of rosehips providing as much Vitamin C as a dozen oranges.

At the end of the Black Garden, turn left and walk through the **Grotto** to the **Heather Garden**. There are many species of **9- heath** (*Erica* species), including tree heath (*Erica arborea*), winter heath (*E. carnea*), bell heather (*E. cinerea*) and many others, but only one species of true **10 - heather** (*Calluna vulgaris*). Extremely popular as garden plants, there are hundreds of cultivars (cultivated varieties) of both heath and heather, a small selection of which are growing here. Look closely at the foliage and you will notice that heather (*Calluna*) has tiny scale-like leaves, while heath (*Erica*) has small needle-shaped leaves. Take a stroll around the Heather Garden and return through the Grotto to the main path. Turn left and proceed to the zigzag bridge down the slope. Just before the bridge, on your left is a **11 - Japanese umbrella pine** (*Sciadopitys verticillata*), on the IUCN's (International Union for the Conservation of Nature) Red List of Threatened Species due to over-logging. The tree's common name was inspired by its whorls of needles that resemble umbrella spokes. A slow growing tree, its spicy scented wood is much revered in Japan.

After crossing the bridge, look for several **12 - monkey puzzle trees (*Araucaria araucana*)** to your right. The edible seeds of this primitive conifer were first introduced to England by Scottish botanist Archibald Menzies who travelled with Captain Vancouver to Chile in 1795. Monkey puzzle trees are native to the region in Chile where the Araucana indigenous people live, reflected in the botanical name ***A. araucana***. Trees are either male or female, although the mature trees you see here are female and the smaller ones are too young to bear cones. Near the **Maze** are mature specimens of both male and female trees, so you can compare the male cones with the much larger, rounded female cones.

At the end of the bridge, follow the main path and climb the stone steps to your right. From the peninsula you have a great view of VanDusen's new green **Visitor Centre**, designated LEED® Platinum, the highest level of Leadership in Energy and Environmental Design (LEED) certification in green buildings. The center opened in October 2011.

Return to the main path and continue straight ahead, turning right at the **Mediterranean Garden** sign. Behind the sign is a tall **13 - blue Atlas cedar (*Cedrus atlantica*)** and to its right, the **14-cedar of Lebanon (*Cedrus libani*)**, the tree on the official flag of Lebanon. Both are members of the pine family (Pinaceae) and are true cedars (*Cedrus* species), unlike many trees which bear the common name "cedar". Our own **western red cedar (*Thuja plicata*)**, the provincial tree of British Columbia, is actually not a true cedar and is a member of the cypress family (Cupressaceae).

Continue walking toward the stone bridge. At the bridge, on your left is a **15-strawberry tree (*Arbutus unedo*)** with its brown-red peeling bark. The red berries are edible but not very tasty. Crossing the bridge you can hear the sound of the waterfall from the stream connecting Livingstone Lake to Cypress Pond, the lowest point in the garden. Continue straight ahead along the path around Cypress Pond. Turn left at the **16-red maples (*Acer rubrum*)**. In autumn, as in all deciduous trees, nutrients from the leaves are returned to the trunk and roots, and the chlorophyll in the leaves breaks down, revealing red and yellow pigments, creating the brilliantly coloured fall foliage we all enjoy at this time of year. Fall colour in red maples is at its best and brightest when grown in climates with sunny autumn days and cold nights. During a typical Vancouver autumn, with cloudy days and warm nights, the leaves are not quite as brightly coloured.

As you continue onto the floating bridge, notice the cypress 'knees', projections of the roots of **17- bald cypress (*Taxodium distichum* var. *distichum*)** emerging from the water at the base of the tree trunks. The needles of these deciduous conifers, which date back to the Jurassic, turn amber in autumn before they are shed. The needles reflect off the water of the pond in autumn, creating a beautiful golden effect. The decay-resistant wood of bald cypress is used to make docks and boats, while the resin is used to sterilize wounds.

At the end of the bridge on the right is **18 - sweet gum (*Liquidambar styraciflua*)**, another tree prized for its fall colour. Sweet gum's fragrant amber-coloured sap is used to make perfume and its characteristic spiny, ball-like fruit remain on the tree all winter.

Retrace your steps back to the **16- red maples**, and turn left toward the Visitor Centre. Take the next path to your right, where you will see the impressive cedar ancestral figures cedar by artist Michael Dennis, part of this year's **Earth Art** Exhibit. Walk to the end of the path and keep an eye out on the left for the **19 - goldenrain trees (*Koelreuteria paniculata*)**, which bear yellow flowers in mid-summer and inflated seed 'bladders' shaped like little lanterns in winter. The species is used to absorb heavy metals from contaminated mining sites and its sap is used to make varnish. Returning along this path to the Visitor Centre, on your right at the bench is a grove of **20 - maidenhair trees (*Ginkgo biloba*)**, another living fossil dating back to the Jurassic period. Although common in gardens and often planted as street trees in cities, this species is extremely rare in the wild and is listed as endangered.

This would make a wonderful spot to stop for a while and enjoy the view of Livingstone Lake.