

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

Famous plant explorer David Douglas was born and raised by the banks of the River Tay in Scotland. He began his career as an apprentice gardener on a local laird's estate before leaving to study at the Glasgow University Botanical Gardens, where he became a student and friend of English botanist Sir William Hooker. Hooker recommended Douglas to the Royal Horticultural Society as a plant collector, and so it began that David Douglas became one of the earliest and most influential plant hunters.

Douglas explored regions of North America for plants that would be well-suited to Britain's climate. He collected seeds from more than 880 species, 200 of which were original introductions and about 130 of which proved hardy and are still found in British gardens today. Douglas packed his plant specimens carefully and sent them by a variety of routes to ensure they reached London safely.

Tenacious despite the incredible travel hardships he suffered, David Douglas undertook two arduous sea voyages to the Pacific Northwest, canoed and hiked from the Pacific to Hudson Bay, climbed the Rockies and explored the volcanoes of Hawaii. He connected with the aboriginal peoples of the places he visited, recording their way of life before European contact. Those who spent a winter with Douglas at Fort Vancouver in Washington State described him with affection but as a "tad stubborn". Many plants have been named in honour of David Douglas and his many introductions to horticulture endure in public and private gardens, including some of the great houses of his native Scotland which feature collections of "Douglas introductions".

This tour focusses on a selection of David Douglas's Pacific Northwest plant "discoveries". Begin by following the ramp off the Plaza down to your right. Follow the arrow signs to the first path, turn left and then left again to find **1 - salal (*Gaultheria shallon*)**, the first plant Douglas encountered after setting foot on the North American shore of Cape Disappointment at the mouth of the Columbia River. It is among several Pacific Northwest coastal plants recommended first by Douglas's mentor, Archibald Menzies, a fellow Scottish botanist who had traveled with Captain Vancouver. Introduced as a groundcover for British gardens, salal soon naturalized and is now considered a weed. While visiting the Shoalwater Reserve on Willapa Bay, north of the Columbia River mouth, Douglas bought some pounded salal berry cakes made by the local women and sent them back to William Hooker in Glasgow. However, the mealy but tasty black fruit never caught on in Britain.

Continue along the mulched path to **2 - lodgepole pine (*Pinus contorta*)**, which Douglas saw on his coastal travels but found unimpressive, noting "Little can be said in favour of this tree, either for ornament or as a useful wood." He did collect seed but unfortunately it was lost or did not germinate. It was reintroduced to Britain in the 1850s and then became a staple of British forestry.

Follow the arrow signs out of the Woodland Garden to the path leading back to the Plaza. Turn right and continue to the Cascadia Garden on your left. Douglas first saw **3 - Garry oak (*Quercus garryana*)** while exploring the lower Columbia River and named it after Nicolas Garry, a deputy governor of the Hudson's Bay Company. This is the only oak native to Washington and British Columbia. He noted that its green wood was being used to construct buildings and barrel staves since seasoned wood was hard to work with. He believed it could have commercial value, particularly for ship building, but it was rarely grown in Britain. He noted Garry oak "does not form thick woods as is the case with the Pine tribe, but is interspersed over the country in an open manner, forming belts or clumps along the tributaries of the larger streams". Conservation of remaining Garry oak ecosystems is underway on Vancouver Island and the adjacent Gulf Islands, where development has led to rapid loss of these rich and diverse ecosystems. This particular tree was planted by the Duchess of Cornwall in 2009.

Scan the slope and look for several **4 - camas (*Camassia quamash*)**, a member of the lily family with blue hyacinth-like flowers. Douglas reported it as a food staple of the indigenous peoples who steamed the bulbs overnight in earth ovens or pits lined with hot stones and leaves of skunk cabbage or other plants. You can see **4 - skunk cabbage (*Lysichiton americanus*)** growing in the stream to the

left of the wooden bridge. Once steamed, the camas bulbs were hung up to dry and stored for winter. It is important to distinguish camas from the deadly white-flowered death camas (*Zigadenus venenosus*), which often grows in camas meadows. To avoid deadly poisonings, indigenous women identified death camas bulbs while they were flowering and weeded them out before the harvest. Douglas thought roasted camas bulbs tasted like warm pear and also noted it produced abundant flatulence. He experienced severe digestive upset once, possibly from eating a stray death camas bulb mixed in with the camas bulbs.

Cross the bridge, turn left at the jade water fountain and look in the bed on your left for these introductions by Douglas:

Douglas encountered **6 - tassel bush (*Garrya elliptica*)** in California in 1832. Like Garry oak, he also named this small tree or shrub for Nicholas Garry of the Hudson's Bay Company, in appreciation for his "kind assistance".

Douglas shipped seeds of **7 - tall Oregon grape (*Mahonia aquifolium*)** preserved in spirits to England, hoping that en route, nobody would be tempted to sacrifice the seeds for a drink! The shrub was a success in Britain, used to brighten roadsides with its shiny evergreen leaves and yellow flowers.

The **8 - red-flowering currant (*Ribes sanguineum*)** is considered the most spectacular of Douglas's contributions to temperate gardens. In 1825, he discovered it on the rocky shores of the Columbia River and sent seeds back to England. He observed the plants growing on the exposed shore produced many flowers but few fruit, whereas those growing in shady woods had fewer flowers and more fruit. Red-flowering currant caused a sensation when it first bloomed in England and it became a staple of the Victorian garden. Douglas's earnings from this plant alone covered the cost of his entire trip. In a paper he later presented to the Royal Horticultural Society, he acknowledged that his "esteemed friend Archibald Menzies" had first discovered this species near Nootka Sound and along the Pacific Northwest coast.

Proceed down toward the lake and keep left, following the lake-side path to the end and up to the Grotto entrance. Here you will find a towering **9 – Ponderosa pine (*Pinus ponderosa*)**, also known as western yellow pine. Douglas added Ponderosa pine to his list of "important new conifers" in 1826 while exploring the Columbia River. He noted that indigenous peoples ate the seeds raw, dried or roasted in embers and they stripped the bark for its edible cambium. He wrote "This may have greater claims on our attention than merely its beauty, for in addition to its timber, a great portion of turpentine could be extracted."

Walk through the grotto, keep left, cross the stone bridge, turn left and then turn right at the cross-roads. Follow the paved path until you come to **10 – Douglas-fir (*Pseudotsuga menziesii*)** on your right. Named for both David Douglas and Archibald Menzies, this was among the first trees Douglas encountered in 1825 upon reaching Cape Disappointment in the Pacific Northwest after eight months at sea. Douglas sent seeds to Britain and many of the trees grown from those same seeds are still alive in Scotland. The British timber trade also benefited from Douglas-fir, which became the tallest tree in Europe. In North America, the tallest living specimen is over 100 m, growing in Oregon where Douglas-fir is the state tree.

David Douglas died mysteriously at the age of 35, found dead in a pit trap for wild cattle on the slopes of Mauna Kea, Hawaii. It was first thought Douglas was gored to death by the bull he shared the pit trap with, but later examination revealed he may have been murdered for a large purse of gold he was reported to have been carrying. One hundred years after his death on July 12, 1934, a stone monument was dedicated to David Douglas at the place of his death. Two hundred Douglas-firs were planted around the monument "in memory of the good and great man whose name they bear". The plaque reads, "Here lies Master David Douglas, born in Scotland AD 1799. An indefatigable traveller, he was sent out by the Royal Horticultural Society of London and gave his life for science in the wilds of Hawaii, July 12, 1834". Gardeners have much to thank David Douglas for and his life story and journal make for fascinating reading.

Retrace your steps to the cross-roads at the Perennial Garden and continue on straight ahead, through the stone arch and into the Formal Rose Garden. Here you will find bronze busts of both David Douglas and fellow Scottish botanist Archibald Menzies.