

TREE OF THE MONTH
DECEMBER, 2010
Douglas-fir (*Pseudotsuga menziesii*)
Pine Family - Pinaceae

The Douglas-fir is an iconic tree in the Pacific Northwest. It is the dominant species in our coastal temperate rainforest, growing in pure stands or with red cedar, western hemlock and grand fir. Second only to coast redwood (*Sequoia sempervirens*), Douglas-fir is among the tallest conifers in the world, with records of ancient trees nearly 5 m wide, 120 m tall and over 1000 years old. These giants belong to the Coastal variety, *Pseudotsuga menziesii* var. *menziesii*. Its smaller cousin, Rocky Mountain Douglas-fir (*Pseudotsuga menziesii* var. *glauca*), grows east of the Cascade and Coast mountain ranges. Most of the old-growth trees are gone, but you can still see large specimens in pockets in parks and other isolated, protected areas.

Douglas-fir is a rapidly growing pioneer species that takes over areas cleared by intense fire and other disturbances. As the trees mature, they develop a thick, fire-resistant bark that allows them to survive moderate fires and dominate the forest canopy. Douglas-fir provides food and nesting sites for birds and small mammals and it is most easily recognized by its deeply furrowed, chunky bark and distinctive cones featuring 3-pointed bracts. The bracts resemble a mouse's tail and hind legs, making it appear as though there are mice hiding or trapped within the cones.

First Nations peoples used the wood for construction materials, burned it for fuel, and carved it into fishing tools, hooks and traps. The pitch was used as a sealant and to make a salve for treating colds. The branches were used to cover floors and as bedding layers.

Douglas-fir is a very important timber tree in Western North America. The tall, thick trunks make excellent lumber. Its wood is used to make support beams and trusses, docks, railroad ties, telephone poles, plywood and interiors. Its rapid growth, fragrant boughs and soft needles make Douglas-fir a popular Christmas tree.

The species was first formally described by Dr. Archibald Menzies, a Scottish naturalist-surgeon aboard the HMS *Discovery* during Captain George Vancouver's voyage to the Pacific Northwest in the early 1790s. He collected specimens and sent them back to the Royal Botanic Gardens, Kew in Britain and the tree was eventually named *Pseudotsuga menziesii* after him.

The common name Douglas-fir commemorates David Douglas, another Scottish plant collector, who made numerous trips to North America to collect seeds for the Horticultural Society of London. He had some difficulty collecting seed cones from the tall trees on the Pacific Coast – he tried shooting the cones down but the branches were too high and the trunks were too thick for him to chop down. He eventually collected seeds from Douglas-fir and numerous other species of conifer and flowering plants. These were sent back to England for cultivation, which is how many West Coast plants were introduced to European gardens. Like the famous Captain James Cook, Douglas' adventures ended in Hawaii. In 1834, he fell into a pit dug to capture wild cattle. The pit already contained a trapped bull, which trampled him to death. His poor eyesight may have played a role in the accident. David Douglas was widely recognized for his work and is remembered in the common and scientific names of many of the plants he collected, including Douglas-fir.

To locate Douglas-fir in the Garden, follow the map on the other side of this sheet and look for the black 'Tree of the Month' sign. In addition to this stand of Douglas-fir, you will find many other stands of mature trees throughout the garden.