

## Tree of the Month, December 2016: Japanese umbrella pine, koyamaki (*Sciadopitys verticillata*)

Japanese umbrella pine is an unusual conifer endemic to southern Japan. Fossil evidence from the Cretaceous and Tertiary periods (145 to 2.5 million years ago) suggests that Japanese umbrella pines were once common across the Northern Hemisphere, but today *Sciadopitys verticillata* is the only surviving species in the family Sciadopityaceae.

*Sciadopitys* needles are unique among conifers because they are technically “double needles”, two leaves with separate vascular systems fused together along a groove. The needles are grouped along the branches in whorls of 20-30, an arrangement that resembles the spokes of an umbrella, which lead to the common name “umbrella pine”. The needles are 8-14 cm long and very flexible. *Sciadopitys* also has tiny, brown scale leaves that hug the shoots between the whorls of needles.

The Japanese common name, koyamaki, refers to Mount Koya or Koyasan, a temple town south of Osaka. Koyasan is nestled in a valley surrounded by eight mountain peaks, and is the headquarters of the Shingon Buddhist Sect. Koyamaki are commonly found in the area, and many of the temples and shrines have the trees planted on their grounds. Koyamaki is the imperial crest for ten-year-old Prince Hisahito of Akishino, third in line for the Chrysanthemum Throne.

Japanese umbrella pine is a slow-growing tree, eventually reaching 20-45 meters tall in the wild, although in cultivation it rarely grows more than 10 meters. The needles tend to turn bronzy-yellow in winter in cold, sunny climates.

At VanDusen, umbrella pine can be found growing along the shores of Heron Lake (see map on reverse).

