VanDusen
BOTANICAL GARDEN

Tree of the Month, March 2015:
Chinese sassafras (*Sassafras tzumu)*

Vancouver has had a very mild winter, and many bulbs and trees are flowering early – including Chinese sassafras (*Sassafras tzumu*), which started blooming in mid-February, weeks ahead of its usual bloom-time in March. The fluffy panicles of small yellow flowers should last into early March, followed by bright green leaves, some with three-lobes and some un-lobed.

Chinese sassafras was first collected by Augustine Henry in Hubei, China in the late 19th Century, and was originally named *Lindera tzumu*. In 1906, Ernest Wilson, a plant collector who introduced many Chinese plants to western horticulture, suggested to William Hemsley, keeper of the Herbarium at Kew Gardens, that these specimens greatly resembled the North American white sassafras (*Sassafras albidum*). Hemsley agreed, and soon renamed the species *Sassafras tzumu*.

There are currently three species of *Sassafras*, two in Eastern Asia and one in North America: *S. tzumu* on the Chinese mainland, *S. randaiense* in Taiwan, and *S. albidum* in Eastern Canada and the Eastern United States. *Sassafras* isn't the only genus that shares this unusual distribution: tulip trees (*Liriodendron*), witch hazel (*Hamamelis*), sweet gum (*Liquidambar*), ginseng (*Panax*) and ginger (*Asarum*) are all found in Eastern North America and Eastern Asia, over 13,000 kilometers apart.

Why do these two distant regions have such similar plant species? Botanists have been pondering that question for over 200 years, and the best explanation so far is climate change. Millions of years ago, when the climate was warmer, the genera listed above were widespread across the northern hemisphere, assisted by the Bering and North Atlantic land bridges. *Sassafras* fossils from the Eocene epoch, 50 million years ago, have been found in British Columbia and Washington State.

When the climate began to cool, with periods of glaciation during the Pleistocene epoch 2 million years ago, these genera, including *Sassafras*, died out across much of their range. Relict populations survived in Eastern North America and Eastern Asia, where the surviving species continued to evolve in isolation. The result today is closely related species, like Chinese sassafras and the North American white sassafras, that occur in widely separated ranges with similar climates.

At VanDusen, our Chinese sassafras can be found at the entrance to the Fern Dell in the Sino-Himalayan Garden.