

VANDUSEN BOTANICAL GARDEN
SEASONAL SELF-GUIDED TOUR
APRIL 2011

Sally M

Enter the garden down the ramp to the right and down the path toward the lake. Just before the jade drinking fountain on your right is **1. silk tassel bush (*Garrya elliptica* 'James Roof')** noted for its unusual leathery leaves and long, silky grey catkins. The catkins are composed of tiny wind-pollinated flowers that lack petals. Male and female catkins are borne separately on male and female plants. This plant is male.

The tour continues past the jade fountain and along the path beside the lake. On your left is **2. bollwyller pear (\times *Sorbopyrus auricularis*)**. It is a member of the rose family (**Rosaceae**) and bears small, slightly pear-shaped fruit which have a very nice flavour when fully ripe. On your left is a collection of grasses, planted there to catch maximum wind. As you continue along the path you will see on your left a **3. medlar (*Mespilus germanica*)**. This tree has been cultivated for 3000 years in SW Asia and SE Europe, mainly Turkey. The fruit is hard and acidic, but when left to soften after ripening (called "bletting") it sweetens, acquiring a consistency and flavour rather like apple sauce. Further along is **4. David's Christmas berry (*Photinia davidiana* var. *undulata*; formerly *Stranvaesia davidiana* var. *undulata*)**. Its long narrow leaves are brilliant red in spring and then turn pink and finally green. In May clusters of small white flowers will appear, followed by green fruit which, in October, will turn orange and later an intense red. Still further along is **5. weeping willowleaf pear (*Pyrus salicifolia* 'Pendula')**, noted for its silver foliage, the most famous specimen being in the late Vita Sackville-West's White Garden at Sissinghurst Castle in England. White flowers with striking black-tipped stamens are produced in clusters later in the season.

Across the water you can see what look like piles of huge dead leaves along the water's edge. These are the enormous leaves of **6. giant rhubarb (*Gunnera* species)**, one of the largest herbaceous plants on earth. Another specimen is just ahead by the water. This species, *Gunnera manicata*, is 95 million years old and became adapted to growing in swamps where dinosaurs once browsed. This adaptation involves a symbiotic relationship with cyanobacteria (formerly known as blue-green algae) which live in spaces inside the plant cell walls, providing nitrogen to the plant and obtaining food from it in return. The presence of cyanobacteria makes it possible for *Gunnera* to grow in swamps which are characteristically low in nitrogen. *Gunnera* is the only existing flowering plant that has this special symbiotic relationship with cyanobacteria. The leaves of

Gunnera are very large and extremely rough. The tiny reddish brown flowers grow on massive spikes that can be seen later in the season beneath the leaves.

On your right is the striking **7. Rocky Mountain bristlecone pine (*Pinus aristata*)**. The oldest specimen found so far was an amazing ~2,500 years old and the tallest ~75 feet tall. Both were found in Colorado. Follow the path leading down toward the little zig-zag bridge. On your left is a **8. Japanese umbrella pine (*Sciadopitys verticillata*)**. This interesting and attractive tree has two kinds of leaves - long, slightly flattened leaves in whorls at the ends of branches (these are actually photosynthetic stem tissue!), and small scale-like leaves below each whorl, which are the true leaves and may be difficult to see.

Cross the bridge. You are now in the Southern Hemisphere Garden. Take the main path ahead. On either side are many species of ***Veronica* (formerly *Hebe*)**, which are natives of New Zealand, the Falkland Islands and South America. Ahead is a striking female **9. monkey puzzle tree (*Araucaria araucana*)** with its large spherical seed cones at the branch tips. There are several other monkey puzzles in this area, but all are males with smaller, more cylindrical pollen cones. Turn left at the **10. Wollemi pines (*Wollemia nobilis*)**. The largest one here is about 6' tall with a plaque telling the story of how this rare species was discovered. There are some smaller trees nearby. The existence of these extraordinary plants was unknown until 1994! Fossils have since been found and we now know that roughly 100 million years ago this species grew throughout the southern hemisphere, even in Antarctica, which once had a warm climate. It is now restricted to one or two almost inaccessible gorges in Wollemi National Park in the Blue Mountains northwest of Sydney, Australia, which is why no one knew about it for so long. Their exact location is being kept secret in order to preserve the remaining ~100 specimens. They grow to ~130' and live ~1000 years. They are in the same family, the **monkey puzzle family (*Araucariaceae*)** as the monkey puzzle tree. The Wollemi pine is being propagated and sold around the world to raise money for the protection and preservation of the species. It is not yet clear whether some of our smaller specimens have survived the recent cold winter.

Turn left along the path. Near the **Wollemi pines** are **11. Tasmanian tree ferns (*Dicksonia antarctica*)** which must be wrapped in straw to protect them during winter. These ferns are native to Tasmania and to Victoria and New South Wales in Australia. They are beautiful later in spring when the fronds develop at the top. Further along on the left is a eucalyptus tree known as **Victorian ash or swamp gum (*Eucalyptus regnans*)**. In Australia it is also known as **stringy gum** because of its straight, smooth grey trunk and its height. It is the tallest of the **eucalypts** (to 330 feet tall at maturity) and it is the tallest hardwood tree species on earth. (The absolute tallest tree species is coming up!)

Go up the little gravel path on your right through the Chilean Garden. Near the

end of the path on your left is a much pruned and gnarled, deciduous tree called **12. Antarctic beech**, or ñire in Chilean, (*Nothofagus antarctica*), native from Tierra del Fuego to Chile. Other **southern beech** (*Nothofagus*) species are native to Australia, New Zealand, New Guinea and New Caledonia, and fossils have even been found in Antarctica. The distribution of these trees suggests that *Nothofagus* species date back to 200 million years ago, when the continents were connected, forming the supercontinent Gondwana.

Turn right at the main path and go over the little stone bridge leading out of the Chilean Garden, and keep right. On your right are three young magnolias: **13. Magnolia 'Tranquility'**, *Magnolia 'Serene'* and *Magnolia 'Sunburst'*. On your left are some mature magnolias: **14. kobushi magnolia** (*Magnolia kobus* var. *kobus*) and *Magnolia kobus* var. *borealis*. Based on fossil evidence, the magnolia family (Magnoliaceae) is up to 95 million years old. Members of this family are nearly all pollinated by beetles, which accounts for their large, heavily scented, greenish, white or pale pink flowers, and tough ovaries - resistant to chewing! The magnolia family has a disjunct distribution, with species native to both Asia and the Americas (including species in the southernmost part of eastern Canada).

Further along the path, on the right, is **star magnolia** (*Magnolia stellata* 'Royal Star'). Beyond it are three **15. goldenrain trees** (*Kolreuteria paniculata*), named for their outstanding display of small, butter-yellow, star-shaped flowers on long, branched inflorescences in July. You may find a few of their large inflated, copper-coloured seed pods on the ground, left over from last fall. Ahead on the right by the water is a magnificent **16. red alder** (*Alnus rubra*). Alders bear male and female flowers in separate catkins on the same tree. The pollen from the male catkins is distributed by wind and is a source of discomfort for hay fever sufferers.

Proceed along the path toward the construction site and turn left onto the woodland trail. After a few feet turn right onto a small path which leads to a **17. coast redwood** (*Sequoia sempervirens*). This species includes the tallest known living tree in the world at 379 feet. It was measured in Northern California in 2006 by a team of scientists who found it after a difficult four mile hike into the old growth redwood forest. They gave this tree the name 'Hyperion'. The soft, fire-resistant bark of this species can reach a thickness of 12". The forest was saved from logging by United States President Jimmy Carter, just two weeks before Hyperion would have been cut down!

This is the end of the tour. To return to the entrance, simply retrace your steps.