

Thursday Gardener Walk with James P. – May 2, 2019

Recorded by Marilyn G

Notes have not been reviewed by staff

James P. is the gardener for the Plaza, Eastern North America Garden (ENA), Mediterranean Garden and Southern Hemisphere Garden. We started our walk next to the Plaza near the David Marshall white marble sculptures. Part of this area is being paved to expand Plaza seating, as the lawn has been impacted by the chafer beetle. The original plan here was a wildflower garden, but it never really developed except for several *Camassia leichtlinii* subsp. *suksdorfii* planted in the lawn surrounding the art. This is a tall form of camas native to the west slopes of the Cascades. Across the path is a smaller camas, *C. quamash*.

We headed towards Cypress Pond. At the intersection near the evergreen magnolias, James said that he is working to increase the diversity of plant material in this area, which had been long neglected before the construction of the Visitor Centre. He pointed out *Pycnanthemum muticum* (mountain mint) in Bed 16. It is native to Pennsylvania and will have interesting flowers that last six weeks, making it a top plant for a wide variety of pollinators. You can brew tea from its leaves. In the middle of that bed is *Heuchera villosa* 'Autumn Bride', with its geranium-shaped leaves. It will have white flowers and is quite robust in this dry-shade understory bed.

As we walked along the path to the floating bridge, James pointed out the blooming *Viola blanda*, with its white flowers. In the background is the common (if not invasive) *V. sororia*, with its blue and purple flowers. It is the state flower for four eastern US states. There is also a large clump of *Onoclea sensibilis* with hints of red along the emerging deeply pinnate fronds. It is called the sensitive fern because it is very sensitive to frost. Nearby, *Gillenia trifoliata* (Bowman's root) will have sprays of white flowers in early summer.

This bed is dominated by two striking plants. A tall shrub, *Fothergilla major* Monticola Group, planted in 1987, is in full bloom and is slightly fragrant. The skeletal-looking tree is *Gymnocladus dioica* (Kentucky coffeetree). It is dioecious, with trees having either male or female parts. To produce flowers, trees of both sexes must be planted together, but our tree is alone, and it is too young to sex. James would like to find another one, but they are rare in the trade. The genus name means "naked branch", which is appropriate because it only has leaves for six months. But to make up for that, the bipinnate leaves are enormous. It will bear a long brownish-black seed pod. The tree does not propagate itself easily, as the seeds are too heavy to be dispersed by wind or water. They are also poisonous and hard to digest, so there is no animal dispersal either, although scientists think that in the past they may have been chewed on by mastodons, which broke down the seed coating, allowing them to germinate. Native peoples would roast the beans to make a beverage, which settlers thought tasted like coffee, hence the common name. (Roasting kills the poison.)

We then turned down the grassy path heading north to the Autumn Walk. Along the path is a large planting of the eastern native *Podophyllum peltatum*, the mayapple. This is a great understory plant. The small white flowers are hidden under the leaves, and they will produce an edible fruit. James says it is like passionfruit. The seeds are

poisonous, however. The Woodland Garden has a “sister” species native to Asia, *P. ‘Spotty Dotty.’*

There is a large stand of *Matteuccia struthiopteris*, ostrich fern, the source of edible fiddleheads. James says they taste like asparagus with a hint of soil. The fiddleheads need to be eaten just as they emerge from the ground; otherwise, they are tough and stringy. They hate water in the summer and will disappear. Overhead is the blooming *Halesia carolina*, which is in the Styrax family. (There is also a large *Halesia monticola* in bloom now between Oak St. and the Cedar Room entrance to the Admin building.)

Across the path are some anemones in bloom, which are not native to Eastern North America. They either escaped from another part of the garden or were planted in error, but he is leaving them because they look nice. A new addition to this area is *Mertensia pulmonarioides*, Virginia bluebells, which he hopes will spread to create a bluebell wood. (The plants in the traditional British bluebell wood are *Hyacinthoides non-scripta* .). But slugs love their soft, spinach-like leaves, so he has to use a safe slug killer. The bluebells disappear in the summer, which helps them survive summer drought.

As we emerged out on the lawn to the north, James pointed out a newly planted *Sassafras albidum* which is replacing a liquid amber that fell over last year in a storm. This tree can get up to 100 feet tall and 22 feet around (probably not here) and has the unusual characteristic of three to five different leaf shapes on the same tree. It was highly prized by the first European plant hunters in North America and for a while was the second most exported product to Europe after tobacco. The wood is excellent for building, and tea made from the root bark has been used in medicine and root beer up to the present time. It contains a compound called safrole, which has been used in drugs (both legal and illegal, such as MDMA), pesticides, and even cooking (it gives jambalaya its distinctive taste). The pure extract was banned by the US FDA as carcinogenic, but there are methods to make a safrole oil which is safe. Many say it smells like a candy shop. There is another *S. albidum* in the Canadian Heritage Garden, but it is in a shadier location. There is also the Asian *S. tzumu* in the Sino-Himalayan Garden.

This tree led to a discussion about disjunct distribution of plants where taxa are related but separated geographically. A Sunday guide suggested that we read about this phenomenon as it pertains to Eastern North America and Eastern Europe in an article published online in the Arnold Arboretum magazine *Arnoldia*, 2012, “Land Bridge Travelers of the Tertiary” by David Li found at <http://arnoldia.arboretum.harvard.edu>.

On the north side of Cypress Pond along the edge of the grass in Bed 27 is a large mix of different trilliums in full bloom. Edging the bed are small *Erythronium americanum*, the yellow trout lily, with beautiful red markings. Along the path to the pond is *Jeffersonia diphylla*, with its distinctive double leaf and bloodroot-like flowers not yet in bloom. It was named for Thomas Jefferson, who was also a great plant person in addition to his political work. Closer to the pond is a group of *Trillium sessile*, with the flower nestling directly on the stalk. Water lingers in this area in the winter, but these plants can handle it. James noted that most of these flowers fall into the “ephemeral” category of plants which have short life cycles and quickly fade.

We walked around the west edge of Cypress Pond where James has built a little triangular fence to prevent the newly planted *Rosa palustris* from getting trampled. Its

native habitat is the swampland of the American south, so it likes the wet, heavy soil in this part of the Garden. It's similar to a wild rose but extremely fragrant. There are more planted along the banks of the Pond, but James says the abundance of tree roots there make it a challenge to grow. The nearby *Castanea sativa* 'Variegata', the Italian chestnut, is struggling in this soil but occasionally produces a few nuts. There is an American chestnut (*Castanea dentata*) up by the gate on the east side of the Visitor Centre. This tree is almost extinct in North America after an epidemic a century ago.

We then moved to the Mediterranean Garden where spring bulbs have naturalized well, especially the fritillaries. There were a lot of alliums here at one time, but now most of them come up "blind", meaning foliage but no flowers. This bed has a cottage-garden feel, and one interesting plant is *Lamium orvala*, the balm-leaved red dead nettle, with its rosy-pink flowers. It's always been a challenge to find Mediterranean plants that grow in this bed.

A similar problem exists in the Southern Hemisphere Garden. James has been using more seasonal material than lifting it, but now that the on-site greenhouses are not available, it's a problem overwintering it. (They are being reskinned, but will only be used for storage of non-plant, dry materials.) He recently planted 28 *Eucalyptus gunnii*, hoping that a few might survive. We once had a eucalyptus that managed to survive 15 years (it was on the Peninsula), but all the others have succumbed more quickly. He is trying a few specimens of *E. neglecta*, which tolerates wet soil and can stand temps down to -15C, and *E. coccifera* (the Tasmanian snow gum, collected by UBC) to see if they will fare better.

At this point, most of the guides couldn't take the low temperatures either, so the talk ended. James really outdid himself with the research he did to prepare for the talk and would be happy to talk to guides any time about his diverse areas of responsibility.