

Thursday Walk with Miguel M. – July 4, 2019

Contributed by Marilyn G.

These notes have not been reviewed by Garden staff

Miguel welcomed the apprentice guides and said that the gardeners appreciate our hard work. He feels that the guides and gardeners are in a "symbiotic" relationship, as we interpret their work for visitors.

Our first major stop was the sugar maple grove in the Canadian Heritage Garden. Miguel noted that some of the cypresses originally planted along the south edge of the garden have been removed to provide more light, but there are still a number of trees that need to come out and arborist resources are limited. The area under the maples looks bare, but there were some spring ephemerals, like trilliums, which have now gone dormant. The sugar maple is an allelopathic tree. It produces chemicals in its root system which kill off many plants, so very little can grow under it. The maples are diseased and do not have much fall colour since they are so far from their preferred habitat. A guide suggested more interpretation here about the production of maple syrup, as it is an interesting topic for visitors. Other guides noted that there is a cottage industry on Vancouver Island for making syrup from big leaf maples, which requires a lot more sap than syrup made from sugar maples.

Originally there was a bed by the entrance to the Heritage Garden at Gate 3 that featured all the provincial flowers. Over the years some of those plants did not do well in our climate, and others, like Yukon's fireweed, were invasive. Miguel thinks we might do better to have some photos and signage on this subject rather than to try to grow these plants. Miguel also noted that with each change in management, there is a shift of priorities in this area of the Garden.

As we moved towards the Vegetable Garden, Miguel pointed out the Garry oak (*Quercus garryana*) in Bed 135BN, the Pacific Rain Shadow Forest area. Our area is not the best location for these oaks, which do better in the "banana belt" region along the Pacific Coast, especially on Vancouver Island. The nearby arbutus (*Arbutus menziesii*) is often found with Garry oaks, but this specimen does not look good. These trees are hard to establish in a garden. As we passed through the former Apple Orchard in Beds 137A & B, Miguel assured us that new local species will be replanted here in a few years once they are sure the canker spores in the soil from the old trees are gone.

Last year's Vegetable Garden was managed by Camil from Inner City Farms, and its focus was urban vegetable gardening. Camil was elected as a Parks Commissioner in the fall, so Miguel is replicating the garden on his own this summer, with some back-up help. It's a big area to take care of. Last fall he planted 4 kinds of garlic, including Russian. He covered the bed with leaf mulch in the winter then topped it off with fresh soil in the spring. He always plants a cover crop of winter rye, which he rototills in in the spring, but there were so many weeds he had to take a torch to them. Last year all the produce went to Shaughnessy Restaurant, who made a contribution to the Food Bank in exchange, but it was too much and they had to spend a lot of time prepping it. This year they are still taking some produce, but the rest is donated to the Food Bank, and summer campers help harvest on Thursday mornings. The campers were also replanting radishes as we passed by. It's a good way for city kids to learn where their food comes from. The giant red Adirondack chair in the centre was placed there by the Garden Director for the season.

Miguel recently pruned the Maze (and also a finger, which required a trip to Urgent Care for gluing back together). He prunes twice a year. Whenever we have a heavy snow, there is a lot of damage, but now that he has run fencing inside the double rows of shrubs and uses heavy cable, it stays healthier looking. He has also added irrigation and is using a nitrogen-rich fertilizer. The big problem is the kids who try to take shortcuts and trample plants. The monkey puzzle tree in the centre died and was removed a few years ago. The soil there is clay, so it will be difficult to plant something else. There was talk about putting a giant gazing ball or the minotaur sculpture in that space, but no decision has been made.

We moved over to the delphinium "forest" in the Lower Alma VanDusen Garden. It will finish blooming by mid-month, then Miguel will cut the plants back so that they will bloom again in early fall. They are a New Millennium variety in 6-7 colours from New Zealand and were supposed to be short and need no staking. But they grow tall here, maybe because of the mushroom compost Miguel uses, so he built a bamboo frame for support. He has installed a drip system at root level. The weight of water on the heavy flower heads can cause them to collapse, as they were doing today as a result of rain a few days ago. He also said that carts can go around these beds if the grass is dry. [There was a side discussion of where delphiniums are native to, but no one knew. Wikipedia says "all over the northern hemisphere and in the mountains of tropical Africa."]

Once the delphiniums are gone, the other annuals in this large bed will take over. There are yellow coreopsis, amaranth, and cosmos, with the occasional escapee sunflower. In the bed to the east across the grass is a perennial coreopsis, *Coreopsis verticillata* 'Moonbeam', in bloom, backed by the very tall cup plant (*Silphium perfoliatum*). It is so named because water collects in "cups" formed by its leaves, and it is a good water source for birds and insects.

Miguel pointed out the wisteria over the stone bench alcove, which has now grown into a dead pine tree. This species has a symbiotic relationship with certain soil bacteria which form nodules on the roots and fix atmospheric nitrogen. Some of this nitrogen is utilized by the growing plant, but some can also be used by nearby plants. Wisteria also forms a symbiotic relationship with a mycorrhizal fungus which makes available more water, phosphorus and other minerals. Miguel added that he had created a wisteria standard in a pot at home, which he had on his balcony for many years until it was shaded out by new construction next door. He then decided to try a wisteria bonsai, but it still hasn't bloomed after 8 years.

Our last stop was the Alma VanDusen Upper Meadow, which was closed for two years due to fire ants. The streambed has been widened with river rock, but unfortunately, children like to throw the rock into the stream, and Miguel has to remove rocks frequently. The vegetation in and around the stream was taken out to keep the fire ants from jumping over the stream into the garden. The west side has been planted with sunflowers (*Helianthus annuus*). Last year Miguel planted 3 cultivars of sunflowers in various sizes: 'Peredovik', which is small; 'Autumn Beauty', medium-sized; and 'Titan', quite tall. The 'Autumn Beauty' makes a great cut flower. Unfortunately, this year the 'Peredovik' did not germinate, but the other two varieties are thriving, and he has installed tall bamboo stakes to keep the 'Titan' upright. One problem was an infestation of squirrels who ate a lot of the new growth. He put up fencing and trapped some, and the problem stopped. The sunflowers are good for birds and pollinators. They also remove arsenic from the soil (not a problem here!) and are being used as part of clean-up operations at Chernobyl and Fukushima. Miguel has also planted some sunflowers in the vegetable garden, as they attract pests away from other plants. Native people used sunflowers as trellises for growing beans. An owl has been observed perching on the overhead sprinkler head looking for prey hiding among the plants.

Finally, Miguel pointed out 2 nearby trees of interest. The pink-blooming tree along the path is x *Chitalpa tashkentensis* 'Pink Dawn' which is a rare intergeneric hybrid cross of a willow and a catalpa. The newly planted tree nearer the stream is an Arizona sycamore (*Platanus wrightii*) grown from seed by Tomas E., former VanDusen gardener, who donated it in honour of his Chilean father. There is a larger specimen in Bed 51. A guide happened to have a photo of this tree, which has beautiful white bark. Miguel occasionally stops by and says a few words in Spanish to the tree, so hopefully it will survive in our non-desert climate.