WEEKLY UPDATE – JULY 9 – 16, 2017

"Long summer days are my desire
Red suns, that drop as globes of fire
Behind the sloped fields, white with weed:
Warm winds, that waft the wandering seed
With silvery plume…"
Helen Gray Cone (1859-1934), "Long Summer Days"

Our warm weather continues to bring visitors to the garden and keep us busy. There is very little to report.

1. Please ensure that the radios are turned off and securely fastened in their charging cradles. The red light should be ON.

2. Garden highlights – the delphiniums, of course! Visitors are showing us gorgeous photographs of this area, featuring these flowers, the *Robinia pseudoacacia* 'Frisia' or golden locust and the blue sky, a beautiful layering of texture, shape and colour. The hydrangeas are starting bloom.

Guide Goings On

1. Thursday, August 3 - Gardener's Walk with Tomas E through the Rosa Gardens, Phyllis Bentall Garden and the alpine Plants
Meet on the Plaza at 10:00am

Garden Goings On

1. ZimCarvings with Patrick Sephani and visiting artist Peter Kanaji
June 16 – September 30
Discovery Room and in the Garden

2. Works by Anna Milton
June 30 – September 27 in the Library

3. Vancouver Shade Garden Society Show
Sunday, July 16 and Monday, July 17 – 10:00am-4:00pm
Floral Hall
Free admission

Garden Clippings

1. In the "Weekly Update" archives for 2015
July 17-23 – water lilies, catalpas, *crocosmia*

In the "Weekly Update" archives for 2016
July 16-23 – *Rhododendron auriculatum*, vegetables

Fractals – The Joy of Simple Complexity

At this year's RHS Chelsea Flower Show, the Morgan Stanley Garden celebrated patterns, not only those found in nature, but those that are evident in music, art and social communities. The underpinnings of the garden were based on fractal geometry, i.e. an infinite pattern of self similarities across different scales. To this end, the garden contained, besides a gorgeous woodland, appropriate underplantings and a contrasting open terrace, a loggia and a path, both reflecting the ever expanding symmetrical patterns found in nature. Even the 3 sculptures created for this garden were inspired by fractal structures and were "designed to mirror the natural growth fueled by self-repeating patterns demonstrated by a leaf's veins, the lines of a tiny twig or an entire tree."

The pamphlet describing this innovative garden as well as containing its extensive Plant List is in the front pocket of the Information Binder.

Fractal patterns are evident in ice crystals, snowflakes, flowers. leaves and pine cones. The most interesting and complex example is in Romanescu broccoli! Of course, in nature, especially in plants, the pattern is finite and, aside from its mysterious and mesmerizing beauty, fulfills an important function: it is a hyper-efficient way of increasing surface area to maximize exposure to sunlight and to allow a plant's cardiovascular system to transport oxygen and nutrients to all of its parts.

Because nature's fractal patterns offer us more complexity and variation, spending time in a garden or a forest is really good for us. New research in the practice of forest bathing (shinrin-yoku) explores how it gives our voluntary attention (our conscious focus on something and a left brain activity) a break and gently allows our mind to wander aimlessly and be involuntarily engaged in our surroundings by our senses. This "disengagement" from the straight lines and frequent lack of colour in our man-made environments can enhance our cognitive function and foster intellectual wellbeing, making us not only healthier but smarter.

The science behind all of this is extensive and growing. Since 1982, in Japan, the effects of forest bathing on the immune system have been studied, demonstrated and measured scientifically to the extent that many Japanese companies recognize forest bathing therapy and include it in employee health care benefits. More recently, the book *The Nature Fix: Why Nature Makes Us Happier, Healthier and* More *Creative* by Florence Williams (reviewed in the April 16-23, 2017 "WU") explores the human need for connection with the natural world.

As guides in this beautiful garden, we have a unique opportunity and a special role in facilitating this connection and assisting our visitors in engaging in a "conversation" with the plants here.

Monsters in our Midst!

The lead article in the *Province* (Monday, July 3, 2017) warned readers about the annual impending battle against an army of invasive plants and animals and insects.
Summer provides the perfect time for the spread of the invasive species because they travel with us on our motor vehicles and boats as well as on the gear we might be carrying with us, such as tents and even the firewood we use to fuel our campfires, now, alas, banned through out the province.

It identifies some of the familiar and usual suspects, including Japanese Knotweed (see the July 10-16, 2015 "WU"), Himalayan blackberry; pond and lake inhabitants such as yellow flag iris and red-eared slider turtles, both of which thrive in Livingston Lake; mussels, fish and insects.

The article is in the front pocket of the Information Binder.

A few weeks ago, on BNN, Andrew Bell, in a departure from the ups and downs of the TSX, reported on the growing problem of Himalayan balsam (*Impatiens glandulifera*) in Ontario, but it is also present in BC, especially in the Lower Mainland and Fraser Valley. A member of the Balsaminaceae family, it bears pretty pink, hat-shaped flowers, giving rise to other charming names such as Policeman's Helmet, Bobby Tops, Copper Tops, Gnome's Hatstand. Touch-Me-Knot and Kiss-Me- On–the Mountain. While the high nectar production of these plants attracts lots of pollinators, their aggressive seed dispersal belies their pretty names and makes them a menace. The seedpods explode when they are ripe or disturbed and the seeds can scatter up to 23 feet from the plant.

Himalayan balsam might also exhibit allelopathy. If you were on Miguel's Gardener's Walk last Thursday, you will be familiar with this term as he used it in reference to the sugar maples in the Canadian Heritage Garden. Allelopathy is a kind of chemical warfare engaged in by some plants whereby toxic chemicals are excreted into the soil, thereby inhibiting growth and development of neighbouring plants. This gives the plant a competitive advantage and allows it to flourish and, in the case of Himalayan balsam, become invasive.

It was introduced in 1839 in the UK, along with Giant Hogweed and Japanese Knotwood (a stalk of which I recently observed growing in one of the garden beds at Belvedere Garden in northern Wales); all were promoted for their size and "splendid invasiveness". Now, however, motorists who see Himalayan balsam growing along roads and byways are being encouraged to stop and engage in balsam-bashing (similar to our ivy-busting) in an attempt to eradicate it.

The pamphlet "Help Stop the Spread of Invasives" which is available in the Library and at the Visitors Services desk identifies native plants to use as replacements.

Please send questions, comments, suggestions etc. to pkbuchanan@shaw.ca or write them down in the Information Binder. The Library and www.ericanotebook.com also offer superb resources for guides.

It looks like the hot weather is going to continue for a while.
Have a great week of guiding!

"Between thin fingers of the pine
The fluid gold of sunlight slips,
And through the tamarack's grey-green fringe
Upon the level birch leaves drips…"
S. Weir Mitchell (1829-1914), "Summer Afternoon in the Wood"