

WEEKLY UPDATE – SEPTEMBER 17 -24, 2016

“Autumn arrives, arranged in splendid mien;
Vines, cluster’d full, add to the beauteous scene,
And fruit trees cloth’d profusely laden, nod,
Complaint bowing to the fertile soil.”

Farmer’s Almanac, 1818

The Fall or Autumnal Equinox will occur, locally, on Thursday, September 22 at 7:21am. The equinox occurs when the sun crosses the celestial equator from North to South. Our day and night will be of approximately equal duration. Culturally, this is a significant event associated with many festivals, both religious and pagan. The Roman celebration of the Fall Equinox was dedicated to Pomona, the goddess of fruit and growing things.

It was beautiful in the garden today; warm, a very slight breeze, an abundance of fall textures, shapes, colours and scents. However, it seems it is all going to end on Friday making our chances of seeing the full moon unlikely. There is very little to report.

1. Cart #1 is back in action but Cart #3 went out of service today. Hopefully, it will be attended to and back in service soon.
2. Seen and heard: up by the Waterfall, the dense clusters of rounded samaras of the *Dipteronia sinensis* are worth pointing out to visitors.
 - : look way up to see the hanging blue dead man’s fingers.
 - : right across from them, the hanging spikes of the Spiketail tree, *Stachyurus praecox*, are bare of flowers but striking in a subtle way nonetheless.
 - : the golden *Psuedoacacia robinia* ‘Frisia’ against the clear blue sky – spectacular!
 - : delicate pink blossoms at the same time as the hips on the Carolina rose in the Black Garden.
 - : hummingbirds in the Heritage Vegetable Garden.
 - : chickadees in the Fern Dell.

Guide Goings On

1. Thursday, October 6 – Gardener’s Walk with Cynthia Sayre, Curator of Collections at the garden with a focus on collection-related issues.
2. Thursday, October 13 – Guide Education/Business Meeting
The speaker will be Lyn Grants, a teacher of History and Natural History and a UBC FOG. Her topic, with its intriguing title, will be “Where is New Holland? And Who was Ferdinand Bauer?”

Garden Goings On

1. Zimcarvings – September 2 – 30 in the Glasshouse and in the Formal Rose Garden where some lovely sculptures are on display.
2. The Nature of Art – September 2 – 28 in the Discovery Room
3. Medicine Wheel Ceremony
Sunday, September 18 – 12:00pm-3:00pm
Canadian Heritage Garden
A celebration of the Autumnal Equinox
4. Annual Compost and Soil Sale
Saturday, September 24 – 10:00am-3:00pm
West end of the main parking lot
5. Dried Flower Arrangers' Show and Sale
Friday, September 23 – 1:00pm-3:00pm
Saturday, September 24 and Sunday, September 25 – 10:00am-4:00pm
HSBC Arrival Hall at the Visitor Center
6. The Signature of All Things - October 2 – 31 in the Discovery Room
An art exhibition inspired by Elizabeth Gilbert's botanical novel.
The Opening Reception will be on October 2 from 1:00pm-4:00pm.

Garden Clippings

1. Wednesday, September 21 is the fifth Canada National Tree Day.
2. In the "Weekly Update" Archives
 - September 4-25, 2015 – *Hibiscus syriacus* -Rose of Sharon
 - September 11-17, 2015 – *Magnolia sieboldii* – Oyama magnolia;
Colchicum autumnale -Autumn crocus
 - September 18-24, 2015 - Maples

"Women's Tongue" or "Noisy Leaf"? *Populus tremuloides* – the Trembling Aspens

"The sweeping of our horses' manes
Showed us the wind and which way it blew
But it was the aspens that gave it voice.

Swirling leaves,

Like erratic wings of butterflies,
Shimmered, shook, slapped,
Simultaneously clapping as we passed..."
Linda Reznicek, "Riding through a Grove of Aspens", June 23, 2011

Trembling aspens, also known as quaking aspens or quakies, golden aspen, popple, American aspen, mountain aspen and by many other names, are a member of the Salicaceae or willow family. They are the most widespread tree in North America with a range from Alaska to central Mexico and the most common deciduous tree in Canada.

The bark is smooth and white with dark patches of grey called denticles where branches have dropped off and caused scarring.

The leaves are round, oval or heart-shaped, and cross-sectioning reveals flexible, flattened petioles, the unique feature which causes them to "quake" or tremble – thus their botanical name. An aboriginal name for the tree translates as "women's tongue" or noisy leaf"! You can decide which version you like better. In the fall, especially in late September and October, the leaves turn a brilliant, bright yellow and make for stunning foliage displays on mountainsides and valleys which attract the leaf-peepers.

Both leaves and bark carry out photosynthesis.

The flowers consist of male and female catkins on separate trees which appear before the leaves; the fruits consist of a long string of seed capsules containing seeds encased in a cottony fluff. When they burst, the seeds are easily dispersed by the wind.

Trembling aspens exhibit asexual reproduction and propagate through a shared system of rhizomes or roots which create large colonies of clones; genetically, they are identical and, technically, only one tree. Only pocket gophers can kill these extensive root systems. The largest clonal colony is in the Fishlake National Forest in Utah; it is named "Pando", Latin for "I serve" (but affectionately called "Trembling Giant") and consists, from one male tree, of a single root system of over 50,000 stems covering over 100 acres of land. Its estimated weight is about 6,600 tons and it is thought to be about 80,000 years old. It is the world's largest living organism!

Not surprisingly, the trembling aspen is the state tree of Utah.

Because of this clonal make-up, trees in one colony will all change colour at the same time while the one right next to it operates on its own timetable and changes at a different time. It is easy to see which trees belong to which colonies.

Groves of trembling aspens provide excellent habitat for both animals and a variety of bird species. For example, beavers cut down the trees for their dams and lodges.

Aspen wood does not splinter and it is therefore good for sauna benches and playground structures. It is also used in the production of pulp products.

Muka, a nutritious animal feed containing protein, cellulose and minerals, is made from the leaves.

Canadian and American indigenous people used the bark of the trembling aspen in a variety of ways. The Salishan in Canada made an infusion used in the treatment of internal ailments including stomach aches. The Carriers applied bark to open wounds to stop bleeding; hot compresses were made from the ashes for arthritic pain and swelling. Even the rotten wood was put to use as a baby diaper or baby cradle lining.

In the south western US, the Apache, Chiricahua and the Mescalero scraped off the inner bark, dried and ground it and then baked it to make a kind of a cake.

Early settlers derived a quinine-like substance from the bark which they used as protection against disease and as a treatment for muscle cramping. In Canadian folklore, some French-Canadian trappers believed that the "True Cross" was made from the wood of an aspen tree and that ever since this barbaric use, the aspen has never ceased trembling.

Trembling aspens are currently threatened by dieback, the cause of which is unknown. One theory suggests that ungulates, i.e. cattle, deer, elk and moose, are responsible because they eat the bark where photosynthesis occurs. However, the most likely cause has to do with fire suppression, although years of drought in some parts of North America and devastating forest fires may correct this situation.

Aspens are a pioneer plant; they grow quickly and reclaim a disturbed landscape. They are often planted as firebreaks. However, if forest fires don't destroy timber on a fairly regular basis, then the big conifers grow and their higher canopy prevents sunlight from reaching aspens which thrive on sunlight and in open spaces.

In VanDusen Garden, a grove of trembling aspens sits behind the Medicine Wheel in the Canadian Heritage Garden (bed 135A). Their foliage has not yet changed colour yet and, in fact, the trees don't look healthy. Dead branches hang off the trunks and some of the leaves are mottled with black. Not enough light, perhaps? Or water issues? But the bark is smooth and white and the "clapping" of thousands of "noisy leaf(s)" provided a soothing, almost mystical, experience of "grace in the grove" on a warm, late summer afternoon.

More information on *Populus tremuloides* can be found in the September 2013 "Tree of the Month" item. Check it out along with all of the other information so useful to guides on www.ericnotebook.com. This website is expanding with regular

additions of the Gardener's Walk, Self Guided Tours, the 2016 Vegetable Garden material and "Weekly Updates".

Please send any comments, corrections, additions, questions etc. to pkbuchanan@shaw.ca. Your input and feedback is greatly appreciated.

Celebrate National Tree Day and the Autumnal Equinox as the garden puts on its colourful, fragrant fall display.

Have a great week of guiding, even if it rains!!

"In the garden, Autumn is, indeed, the crowning glory of the year, bringing us the fruition of months of thought and care and toil. And at no season, save perhaps in Daffodil time, do we get such superb colour effects as from August to November."

Rose G. Kingsley (1845-1925), *The Autumn Garden*, 1905