



# Bermuda Botanical Society

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## FEBRUARY NEWSLETTER 2014 FROM THE PRESIDENT

We have just enjoyed the warmest January of recent memory and it was all the more remarkable given the severe weather conditions endured by our continental neighbours.

Of course, we are not through with winter yet, but thus far the mild temperatures, mostly moderate winds, good rainfall and lengthening daylight hours, have all made for great growing conditions.

All the winter vegetables, cool weather flowers and shrubs are thriving and loquats are there for the picking. I always think it a shame how much of our wayside fruit, especially loquats, cherries and pawpaws, goes uneaten. However, I notice that fine old tradition of schoolchildren helping themselves to loquats on their way home from school continues to be observed! The loquat, *Eriobotrya japonica*, is a wonderful fruit and very versatile in the kitchen.

Now is a good time of year for planting shrubs and trees and most gardens have room for at least one loquat tree and maybe also a pawpaw or two.

Neither loquats nor pawpaws lend themselves to cloning, that is cuttings, suckering etc., so they must be raised from seed. Loquat seedlings can be found self-sown under fruiting trees and transplanted. Pawpaws, *Carica papaya*, do not transplant readily and are best grown from saved seed in pots. Take care not to disturb the root system unduly when potting on and planting out.

I understand the pawpaw is one the world's most productive crops in terms of weight of crop produced in a given area of land per year. It is reputed to have all kinds of beneficial properties, not the least being its capacity to aid digestion and tenderize meat etc., thanks to a high content of the enzyme papain.

The pawpaw is dioecious, that is it has separate male and female plants. Obviously we want to grow the female, fruit bearing, trees, but the sex can only be determined once flowers are produced. The male flowers are borne on long stalks from the trunk, whereas the female flowers are larger and carried close to the trunk.

It is therefore advisable to grow three or four pawpaw plants in a group and then pull out all but the most vigorous female, once the sexes have become apparent.

The pawpaw is fast growing and relatively short lived. It tends to grow as a single trunk and the fruit becomes harder to reach as the tree gets taller. The growth of multiple trunks can be encouraged by pinching out the growing tip when the plant is between one and four feet tall.

We have an excellent pawpaw tree growing outside our kitchen. At one point I was harvesting the fruit from an upstairs bedroom window! Eventually I cut back the main stem and the tree is now producing fruit abundantly on three secondary trunks:



Photo © Nigel Chudleigh

When a main trunk is cut, the interior will be hollow and a potential breeding site for mosquitoes. It is essential therefore to place an inverted paint can, or similar barrier, over the opening to keep out rain water.

*Nigel Chudleigh*

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# DECIDUOUS TREES

## BY GEORGE PETERICH

In the Palaearctic zone many trees lose their leaves in the Fall, I think that the word Fall has to do with the falling of leaves (I'll let a linguist shine a light on this). So winter is the time when the trees are naked, or bald, as some would say. Not so in Bermuda. If I have been away in the winter I am always happy to see how green this place is.

But there are quite a few exceptions. Wanting to write about this I first made up a list of those trees. There are 10 different ones to begin with.

Starting with some exotics that we have in the Botanical Gardens there is enough to say already. The Poinciana now shows its characteristic branches. This tree originates from Madagascar where it may be drought deciduous. Here apparently it is the lower temperature that triggers the tree to shed its leaves.

Jacaranda, from Brazil, behaves similarly. Black Ebony and Kapok trees lose their leaves too, but some do it sooner than others. I know no explanation for this.

Then we have the Shaving Brush Tree that is now waiting for the spring. I always watch that tree very closely for it is such a treat to see it come to life again. First one sees the flower buds appear and grow fatter and longer till they burst open, showing the 200+ stamens that make the shaving brush. When the flowers drop the leaves appear again.

The Flame Tree is another special case. It starts to bloom and when the flowers develop the leaves will drop. The result is spectacular!

Somewhere in the Botanical Gardens there are a few Southern Hackberry Trees. These are native here, and probably the only deciduous tree in Bermuda when the

first settlers arrived. (I might mention the now rare Yellow Wood, *Xanthoxylum flavum*, but that is only half deciduous, I have read) Southern Hackberry Trees are a good choice to plant where you want shade in the summer and a bit of sunlight in the winter. The first green on these is very subtle and as enjoyable to see as the first green in a Beech forest in Europe.

There is one Bald Cypress in the Gardens. This species is native to the Southern United States and is so called because it loses its leaves in winter. (It may be besides the point here, but the Live Oak has its name because it is always green.)

Come to think of it, we do not even have to leave the Gardens to see all the trees on my list. In the Kitchen Garden we can see a leafless Peach Tree that is now displaying its lovely pink flowers. Further in the back of the Gardens, in the so-called "woodlands", you will find some Fiddlewood trees. They give a very nice show in the late Spring when the leaves turn a flashing orange, brightening the landscape. Shortly after they drop the new leaves appear. But again some Fiddlewoods, like Kapok trees and Black Ebonies, follow their own schedule. One wonders why?

Poinciana : *Delonix regia*  
Jacaranda: *Jacaranda mimosifolia*  
Black Ebony: *Albizia lebbek*  
Kapok Tree: *Caiba pentandra*  
Flame Tree: *Brachichiton acreifolius*  
Shaving Brush Tree: *Pseudobombax ellipticum*  
Southern Hackberry: *Celtis laevigata*  
Bald Cypress: *Taxodium distichum*  
Fiddlewood *Cytherexylum spinosum*  
Peach Tree: *Prunus persica*

### ***Trivium No. 7 by George***

#### **BOTANY AND THE 5 SENSES**

No serious botanist could do without the senses, when studying plants. We rely on: Sight, Touch, Smell, and Taste, probably in that order too.

But how about Hearing, the 5<sup>th</sup> sense? One could hear seed pods pop open. But to experience a really impressive sound that is made by plants, a botanist must travel far! It is said that, in some forests in Asia, Bamboo grows so fast, that you can actually hear it grow.

# BOTANICAL MUSINGS

BY LISA GREENE

In November, last year, I had the unexpected pleasure of leading a group from the BBS on a walk in the Arboretum. It made me distinctly aware of how many trees there are in the Arboretum that I cannot identify, and perhaps not even place in the correct family.

I am now inspired to get to know the Arboretum and its collections of trees better and, to that end, I am asking for help from the membership and friends. Your mission, should you accept it, is to take note of trees that are about to flower, are flowering, or are bearing fruit (flowers and fruit are great clues to the identity of a tree and will simplify the task of identifying the specimen in question) and their location. An accompanying photograph would be great – and if you have GPS capabilities on your phone or camera to determine the precise location of the tree, that would be *even* better! If you could then let me know about your find as soon as reasonable, I'll follow up. ([elgreene@ibl.bm](mailto:elgreene@ibl.bm) or 297-1804)

Some Arboretum trees of note:

Live oak – *Quercus virginiana*: bearing fruit in mid-October and self-seeding in mid-December (identified with Sarah Vallis' help – thought to have been planted by Curator Mike Bush).

Live oak



Mammee apple – *Mammea americana* : bearing fruit in November.

Mammee apple



Spanish cherry - *Mimusops elengi*: Bearing fruit and self-seeding in mid-December:



Dombeya - *Dombeya wallichii*: flowering in late December:





Macadamia – likely to be either *M. integrifolia* or *M. tetraphylla* – in the Protea family and related to the silk oak:



Roxburgh's cassia - *Cassia roxburghii* (identified by Ed Manuel)

Royal poinciana (several) along the Middle Road boundary wall that flowered profusely this summer.

I'll be turning to Ed Manuel, Peter Truran, Sarah Vallis and Neville Richardson for their help in adding to this list.

The Arboretum is not only a great place to see beautiful trees, but is, like the Botanical Gardens, an important place for birds – both our resident species and particularly migratory species. A few migratory birds spotted in the Arboretum over the last several years include: Red-breasted nuthatch, Nashville warbler, Yellow-billed cuckoo, Cape May warbler, Palm warbler, Yellow-rumped warbler, Pine warbler, Black and white warbler and Ovenbird. So put on your walking shoes, grab your binoculars and camera and notepad and see what treasures you find in the Arboretum.

*Photos on this page © Lisa Greene*

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## CHRISTMAS PARTY 2013 *(Photos © George Peterich)*



## **IN MEMORIAM**

### **CONTRIBUTED BY LYNN VAUGHAN**



Eileen Darrell, a very dedicated volunteer for the Botanical Society in the cafe and shop for over 15 years until 2010, died in September 2013. She was a very kind and caring person, and could be relied on to take charge in the manager's absence. She volunteered for a number of other charities, including the Orchid Society as a founder member and the Violet Society. So many people eulogised her actions in life. Few could match her achievements. She would have been 87 on 12 January this year.

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Joanne De Fontes volunteered for the Botanical Society occasionally prior to 2010 and attended some of the society's events. She remained a striking, elegant woman until near the end. She died in December 2013 in her 79th year.

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We send our sympathies to Nell Johnston, MBE, a stalwart of the Annual Exhibition and a long-term volunteer tour guide in the Gardens, on the death of her husband, Robert Richard Rupert (Jim) Johnston, MBE in January. At his funeral her niece, Lisa-Dawn Johnston, Director of Parks, read the eulogy. It was truly a celebration of his life with Nell by his side.

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## **UPDATES FROM 2012 SCHOLARSHIP WINNERS**

Kascia White writes that she is now finishing her B.Sc. Hons in Biology at Saint Mary's University, Canada, and she thanks the BBS for awarding her a scholarship. Currently completing her thesis, which focuses on coral reef ecology, she is looking forward to continuing on her path towards success.

Rachael Antonion graduated with her BA Hons degree in Landscape Architecture from Kingston University, UK, and hopes to begin her next degree in Garden Design at the London College of Garden Design, Kew Gardens. This course will take a year, after which she plans to pursue her Master's degree. She, too, sends her thanks to BBS for supporting her financially.

## THE MORE YOU LOOK II

### BY GEORGE PETERICH

Hey! It's spring! The first Freesias are out. But it may be only ephemeral, or is this perhaps a spring that is just in certain microclimates?

We do have seasons in Bermuda, but sadly they seem to be somewhat messed up. Although we see many seasonal changes, they are really not general changes, but rather for example a small change that we observe in plants, and then these are not simultaneous over the entire island, but take place at different times in different places. So a tree may be in winter in Hamilton, but in the fall in the Botanical Gardens. (See also what I wrote on deciduous trees).

Fortunately there are a few plants that have a solid and very recognizable schedule. One of these is the Christmas Vine ( *Turbina corymbosa*). When its first flowers show you can be sure it is Christmas time and if you did not see it around Christmas, it is still in full bloom in January. It is a climber of the Ipomoea clan and I love the cascades of white flowers that just come back day after day. Inspect the plant closely and you'll see rows of flower buds behind each flower, just waiting for their turn. The fragrance is very sweet and they are very attractive to Bees (so be careful when sniffing). I'll now share a secret with you, albeit not completely. To get an unusual thrill out of botany, check out this plant on the Internet. The Aztecs had a special use for it, and called it Ololiuqui. Nasturtium is coming out in force now. Have you already collected a bouquet or spiced up a sandwich or soup with a leaf or flower?

Loquats are showing promise already. Chutney time is almost here, and if you want to make it, make a lot. Not only will it keep well, but also it will get better with time. And see if you can find the recipe for upside down loquat cake. The more you look, the more you cook!

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## TURNERA, RUELLIA AND BARLERIA

### THREE PERENNIALS FOR THE GARDEN

BY GEORGE PETERICH

The Turnera (*Turnera ulmifolia*) is a native plant in Bermuda. It used to be quite common in rocky spots along the roads, but it has now almost disappeared. I have kept a plant from a plant sale in our garden and fortunately it has reproduced nicely, so that there are now a few around the original plant.

A few years ago a cultivar came on the market, and is very popular with gardeners. What is more, these plants are now spreading fast from the spot where they were first planted. One might actually call them invasive. These plants grow into thick bushes. They have shiny green foliage, like the native ones, and yellow five-petalled flowers that are very attractive to bees. The flowers open in the morning and close in the evening. They are a little larger than the ones of the native Turnera. They will grow everywhere, even on Bermuda stone walls. Beware! Remove them while still small, or risk that the stone will

crumble. Not a good idea to have them around. And what will be the fate of the native Turnera?

The native Turnera and the cultivar Turnera can both be seen in the Botanical gardens, and so is the Ruellia (*Ruellia squarosa*). There are even three different ones. The most common is the one with the lanceolate leaves and the blue flowers, but there is also a variety with pink flowers. Then there is another species with similar blue flowers, but that has a very differently shaped leaf, and is probably *Ruellia nudiflora*. Lovely plants, but again beware! They can quickly spread into large stands, and will invade your flower pots when spreading their seeds. They are firmly rooted and will sprout again when cut.

The third plant is the Barleria (*Barleria cristata*). It is of the Acanthus family and can be seen in blue and white. For some time I only knew the blue variety, but I was so



impressed when I first saw it with white flowers, that I had to plant one in our garden – a mistake that I still regret. Here is another perennial that reproduces easily. Fortunately this plant is less firmly rooted than the Ruellia. It is the end of October when I write this and all of the three plants mentioned here can be seen in bloom.

The reason why these three plants spread so fast is that they produce great amounts of seeds. You must get them before the seeds develop. I am going out to do some Barleria hunting.



The white barleria and the pink ruellia. Photos © George Peterich.

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# Upcoming Events:

Sunday, Feb. 23	3 pm	“Drift seeds, ocean debris and ocean currents – what they tell us”: joint presentation by Judie Clee and Lisa Greene. Members \$5, Guests \$10. Visitors’ Centre, Botanical Gardens.
Thursday, March 20	6 pm	“Propagation of roses & PowerPoint of the roses of England” by Diana Antonion of the Rose Society. Members \$5, Guests \$10. Education Classroom, BAMZ