# Bermuda Botanical Society

P.O. Box HM 2116, Hamilton, HM JX, Bermuda
bermudabotanical.org
bdabotanicalsociety@gmail.com

# SEPTEMBER NEWSLETTER 2013

## FROM THE PRESIDENT

The combination of heat, sun and rain, that we have experienced this summer, has resulted in our currently exuberant vegetation. Our flowering trees and shrubs have been quite spectacular.

One hopes that this lush new growth will not fall prey to a tropical system. So far this season, conditions in the Atlantic have not been conducive to cyclone formation.

It is good to see that the silk spiders *Nephila clavipes* are web-building high up in the cherry hedges, as opposed to close to the ground, a fair-weather omen in which I have a lot of faith! But, don't quote me!

Silk spiders on high.

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On Saturday 26 October we will be holding our annual Plant Sale. This is our main means of raising the money to fund our scholarship programme – see report of this year's award elsewhere in this issue. We look to **all** our members to help with the Plant Sale in one way or another.

Firstly, of course, we need plants to sell. Please have a good look around your garden for plants to pot up. Now is the time to get them established to be in best condition by Sale day.

Secondly, if you have garden tools or accessories, ceramic pots etc., that you don't need, please donate them for sale.

Thirdly, we can always use helpers for setting up, selling and clearing away. We need to arrange, price & label the plants during the two days before the sale.

Fourthly, they also serve who only come and buy! Come early for best choice - members are admitted 30 minutes before the general public. Membership can be effected or renewed at the door.

Fifthly, pass the word around! Make sure your gardening friends and relatives are aware of, and come to, the Sale.

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We are delighted to welcome Lallitah Durgah as our new Treasurer and Membership Secretary. Lallitah replaces Samantha Bromfield who, sadly, left us and Bermuda earlier this year.

Lallitah is a Certified Accountant and Certified Internal Auditor by profession and hails from Trinidad & Tobago.

Speaking of Membership, our new membership year started on 1 September. Annual members please renew at your earliest convenience. Our membership fees remain unchanged, and are undoubtedly the lowest of any organization of which you are likely to be a member!

Membership form is attached to this newsletter.

If renewing by direct bank transfer to our bank account, please ensure your name is mentioned. Should there be any change to your personal details, please email such change to Lallitah at: bdabotanicalsociety@gmail.com

***Nigel Chudleigh***
293-0128 nchudlei@ibl.bm

# MORE FICUS TREES FROM THE BOT. GARDENS

## BY GEORGE PETERICH

In previous articles we have looked at the Indian Laurel Tree and the Banyan tree. We will now take a look at the Indian Rubber Tree, *Ficus elastica,* found in the same area of the Garden. It has a respectable root system, part of it showing above ground, but does not have the aerial roots and root columns that make the Banyan so impressive. The age of this Indian Rubber tree is not known, but there is one in town that gives that information. You can see it in front of the Bermuda Historical Society's Museum on Queen Street. It was planted there in 1847 by postmaster Perot and it is an admirable 170 years old! The provenance was Guyana, not India, which makes one wonder: did these trees really originate in India? Anyway, it is said that the Japanese wanted to invade mainland Southeast Asia, particularly to reach the supply source of rubber. The rubber story is a bit more complicated, because at the time there were plantations of Hevea rubber trees (*Hevea brasiliensis*) in the Indonesian Archipelago (also occupied by the Japanese) and those trees are not in the genus Ficus, but they are a superior source of rubber.

There is another Indian Rubber tree in the Garden, still in the area of the Ficus collection, and that one has large leaves. We know this one as the "House and Office" Rubber Tree. This one is green and white variegated. It was planted after hurricane Fabian blew over the giant *Ficus retusa* on that spot ten years ago. So you can see how fast they grow. There are also very attractive red and green variegated trees in this same group. In short there is much variation in the species itself.

From here we can see another very large tree with beautiful dark foliage. This is *Ficus urbaniana*, the Elephant Tail Tree, and underneath it there is some wonderful cool shade in the summer months. The diameter of this spectacular tree trunk is some 6 ft. (Knowing this, the girth could be established by a few people, or one mathematician, using Pi). Again we see a lot of roots above ground, and the clusters of roots that hang down from some branches do indeed resemble the tail of an elephant, which has very coarse hair. So here follows an elephant tale.

I have a bracelet that was made for me from elephant hairs that I found in East Africa at a water hole. When I picked them up I wondered why there were so many of those hairs on that spot. Well, the water hole was so small that only one elephant could drink at one time and when the one behind got impatient it pulled the tail of the one in front.

Ficus urbaniana

The Elephant Tail Tree does not come from East Africa but from the New World, particularly tropical South America. These trees can be considered evergreen, but once in a while they decide to shed all leaves. It has happened earlier this year in the BG. It was amazing to see how fast the fresh buds grew and turned into leaves, in a matter of a few days.

Two ficuses (or should we say fici?) is enough for now, and that leaves F. lyrata and F. pumila for another time. The species that are found outside the BG would provide a totally different story.

# MUSINGS

## BY LISA GREENE

In a recent conversation Louise Lamphier mentioned that the flowers of chicory (*Cichorium intybus*) - a lovely pale blue on the plant - turn grey when picked. Does anyone know why? If so, I'd love to hear from you. I'd also be interested to know where you see this plant growing? I've seen it recently on the North Shore in Pembroke and in the Shelly Bay area. My feeling is that it's not very common. According to N.L. Britton in his 'Flora of Bermuda' it flowers nearly throughout the year. I've seen it flowering in July and August.

Chicory

Last month my attention turned to the Large Marsh Rush, *Juncus acutus*, that grows along much of the long shoreline of Ferry Reach and is very visible from Kindley Field Road. In reading the botanical description in Britton's 'Flora', I was surprised that the tip of the stem was described as "pungently tipped". Does it have a distinctive smell, I wondered. I then turned to a botanical glossary and discovered that in botany pungent means "tipped with a sharp rigid point". That is certainly what you find at the end of the Large Marsh Rush leaf! This rush was introduced to Bermuda and has naturalized. Our native sea rush, *Juncus maritimus*, can be seen growing at the eastern end of Spittal Pond.

Large Marsh Rush

And on a recent drive along Barry Road in St. George's, I saw, to my surprise, at the entrance to the dairy, a few jimson weed (*Datura stramonium*) plants growing. The small white flowers (compared to Angel's Trumpet) are about 4" in height. The upright fruit distinguish it from the prickly-bur (*D. inoxia*) whose fruit are pendulous. Both species are listed in Britton's 'Flora'; Jimson weed was described as "common in waste places and cultivated ground" but prickly-bur was not found by Britton.

Jimson Weed

Have you ever seen slug eggs? They look like a string of white beads, each bead about the size of a pea. Unfortunately, I have a healthy population of slugs in my garden, and apparently they mate, as evidenced by eggs under one of my pots.

Slug eggs

And to finish: According to Wolfgang Stuppy of Kew Gardens on his Millennium Seed Bank blog, "the delicious looking fruits of the Virginia creeper (*Parthenocissus quinquefolia*, Vitaceae) contain oxalic acid which can cause severe poisoning and even death if a large number of the berries are ingested. …The presence of poisons which are harmless for one group of animals whilst they are toxic to another enables plants not only to ward off predators but also to select the intended guild of dispersers from the available repertoire of [fruit eaters]." His full blog on why fruit are poisonous can be found at http://www.kew.org/plants-fungi/ Virginia creeper is native to Bermuda. According to the internet, its fruit are eaten by the eastern bluebird, northern cardinals, warblers, vireos, and catbirds. If you've observed birds eating Virginia creeper fruit, I'd love to know what species they were.

While you're at the Kew website, check out their glossary of botanical terms (including pungent): http://www.kew.org/glossary/

*elgreene@ibl.bm*

# BEACH LOBELIA

## BY NIALL AITKEN

Is there hope for Beach Lobelia?
*Scaevola plumieri*: Beach Lobelia, Inkberry (native)
vs *Scaevola sericea* or *taccada*: Beach Naupaka, Hawaiian Half Flower (alien invasive)

I've been living on Doe Bay, Devonshire, for the last few years and thought I had the best Beach Lobelia plants ever. When Hurricane Igor in 2010 destroyed the foreshore the first plant to regrow was the *Scaevola*: such a pretty half flower, and I thought I had the mother growing in my own garden with a stem base of three inches. Other regrowths were Baygrape, Saltgrass, Scurvy Grass, Seaside Morning Glory, New Zealand Spinach, and of course Mexican Pepper and Casuarina. No Ox-Eye, Tassel or Iodine Plant or Golden Rod. That was before Conservation Services' "Bermuda Plant Finder" put me right and I found the *Scaevola* I'd been worshipping was the *Scaevola sericea* or Beach Naupaka, a white berried mythology-enriched shrub arriving from Hawaii in the last thirty years or so, and very pretty too. This plant has decimated the *Scaevola plumieri or* Beach Lobelia protecting our shores. The native Beach Lobelia is also a half flower but much slower growing, and coarser in aspect with black berries.

The Naupaka *above* and the beach lobelia *below*

It is not clear how the Naupaka got here. *Scaevola* is the only genus of the family Goodeniaceae to have come out of Australia. They have fleshy fruit and may spread by sea drift or animal ingestion. *Scaevola plumieri* has been endemic in the Atlantic for time immemorial, but the *Scaevola sericea* is endemic in Hawaii and the tropical Pacific and must have been introduced to the western Atlantic as an exotic plant by man. I can't see it drifting up the Panama Canal, and animal guts are fast moving, so it could not have been dropped by a passing bird.

It is my supposition that the invasive *S. sericea,* along with displacing the native *S. plumieri,* creates its own monoculture, growing so rapidly that it smothers other plants, especially Buttonwood, preventing such from growing and from maintaining a root system that is so important in preventing coastal erosion. The Naupaka roots are shallow, relatively easy to pull up and sprouts can grow two feet in a month. The Naupaka has taken over the coastline of the South and North Shores; an example is Grape Bay.

I spent months seeking out a native Beach Lobelia with only photographic evidence that it existed, finally finding a bedraggled plant on a cliff edge at the west end of the Blackburn Reserve. I took clippings in mid 2012, successfully cloned one and now have it growing on the foreshore (18 inches high, branching but yet to flower). Imagine the thrill I felt on finding large clumps of Beach Lobelia from Horseshoe Beach to Warwick Long Bay.

Naupaka flowers

Beach lobelia flower

A now rare plant in the wild, husbanded on Bermuda's favourite beaches by the Parks Department, though the Naupaka is very active in Warwick Long Bay, and they only sell the invasive variety at Tulo Valley Nursery.

I've successfully cloned three more to the Doe Bay and have planted several hundred of their black fruit to germinate in the hope of having a dozen seedlings ready to plant out after hurricane season (thanks, Robin Marirea).

So apart from being husbanded is there a way of conserving the Beach Lobelia? Do small actions make a difference? I walk my dog from Hungry Bay to Ariel Sands following the coast; uprooting seedlings of Naupaka along with Casuarina and Mexican Pepper as they appear. There are many private properties on this stretch whose shoreline flora I don't interfere with. Some property owners are Ignorant, some Ornery and even an Environmental Officer who should know better, and they are spawning Naupaka berries all the way to Nonsuch Island.

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## Trivium: Cedars, by George Peterich

We all know that the Bermuda Cedar, *Juniperus bermudiana,* is not a cedar , but a juniper.

The White Cedar, *Tabebuia pallida,* another well-known tree, makes it two Non-cedars.

The third one is the Spanish Cedar, *Cedrella odorata,* a tree that is not so well known. You can see a large one in a corner of the south border in the Botanical Gardens. This tree got its name because of its wood, which does smell like real cedar wood (and I don't mean Bermuda cedar wood). The tree originates from the West Indies and the fragrant wood is used to make cigar boxes. Talking about fragrance the flowers are also very fragrant, hence the name, but I am told this changes when it starts to rain. The flowers are followed by clusters of large seedpods. Talking about the wood again, it is highly recommended for use outdoors; it turns grey when exposed to the air, like redwood, and does not rot easily.



Bermuda cedar, white cedar, and Spanish cedar

# IN MEMORIAM

The Bermuda Botanical Society mourns the death of Daniel Carpenter, and extends sincere condolences to his family.

Dan and Jane Carpenter volunteered for several years at the Visitors' Centre. Every Monday Jane worked at the cash desk and Dan greeted the visitors and talked with them. He liked to keep busy, so he helped with mailing of newsletters and billing. He was a pleasure to work with as was Jane. As the Centre became quieter, there was not enough to keep him busy and he decided to move on. Both visited the Centre regularly after 'retirement' and enjoyed our Christmas parties for several years. They were both missed greatly by the manager and other volunteers when they were no longer able to come out.

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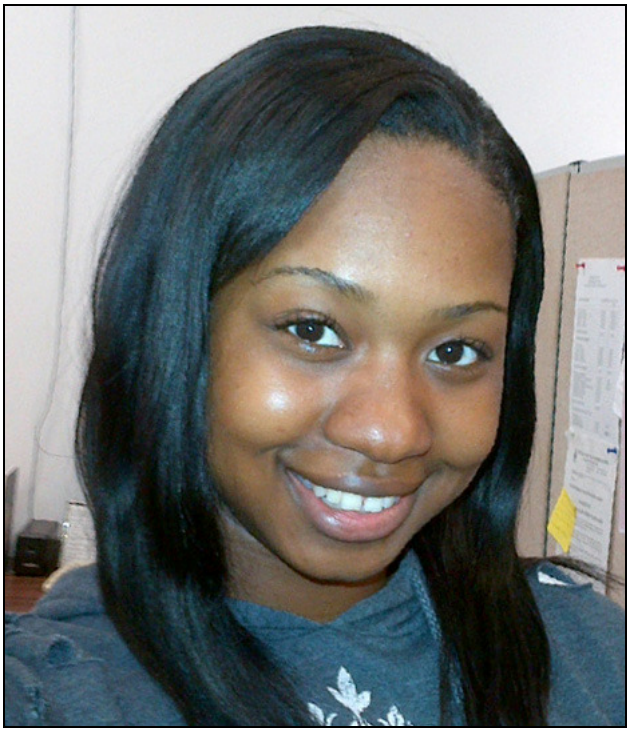
# SCHOLARSHIP CHAIRMAN'S REPORT 2013

## BY PETER LEE



This year we received ten scholarship applications. There were four applicants whose areas of study were not relevant subjects for our scholarship. The areas of study of the six remaining candidates ranged from Biology, Environmental Management, Environmental Science and Landscape Architecture to Turf Management. After short-listing three applicants, the Scholarship Committee decided to award this year's scholarship to Miss Kahnae Bean.

Kahnae had applied last year but was unsuccessful and the Committee encouraged her to re-apply this year. The Committee felt that she had the academic ability and determination to complete her course of study and additionally was in financial need. Another Company awarded her a scholarship and a private sponsor offered to assist with any shortfall, which means that she will be financially secure to start her degree in Environmental Management at the University of Hertfordshire in England (UK) in September 2013. We awarded her $5,000 along with a complimentary membership to the Bermuda Botanical Society.

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## Trivium: Variegated fruits by George

We have a Bower Plant , *Pandoria jasminoides,* in our garden. It does not only have variegated leaves, but variegated fruits or seedpods, as well.

# CALENDAR OF UPCOMING EVENTS

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|---|---|
| **Sat. 5 Oct. :** | **4.00pm** Paper-making workshop with prize-winning artist Ami Zanders. Visitors' Centre, Botanical Gardens. |
| **Sat. 26 Oct.:** | **8:30 am** Plant Sale for Members<br>**9:00 am – 12 noon** Plant sale for general public.<br>J.J. Outerbridge Building, BG |
| **Thurs. 14 Nov.:** | **5.45 pm** AGM Visitors' Centre, BG |
| **Sat. 14 Dec.:** | **5.00 pm - 7.30 pm** Christmas Party. Horticultural Hall, BG |

*In November, Neville Richardson, Curator of the Botanical Gardens, will conduct a tour of the Arboretum. Please stay tuned for date and time.*

# Bermuda Botanical Society

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## ANNUAL MEMBERSHIP FORM

Our Goals: To encourage & support the botanical sciences within the community

Your membership contribution is important to us. It helps the Society to further our goals

We support the following programmes:

- **SCHOLARSHIP FUND** To assist Bermuda's horticultural students
- **LECTURES, WORKSHOPS & TOURS** A winter/spring programme on botanical themes to educate and inform our members and guests

As a member of the Society, you will receive the following benefits:

- **QUARTERLY NEWSLETTER** with news of the Society and advance notice of events
- **DISCOUNT** on lectures and tours
- **MEMBERS' DISCOUNT** at Brighton Nursery (membership card required)
- **MEMBERS' DISCOUNT** at The Animal & Garden House (membership card required)

**PLEASE SHOW YOUR SUPPORT & RENEW YOUR MEMBERSHIP BY COMPLETING THE FORM BELOW. THANK YOU!**

### 1) PERSONAL DETAILS

***New Member:*** ☐ ***Renewal:*** ☐

**Name: Mr/Mrs/Ms/Miss** *(please print)*

_____

**Mailing Address:** *(required only for new members or change of address)*

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_____

**Home Phone:** _____ **Cell Phone:** _____ **Work Phone:** _____

**E-mail Address:**

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**Please tick if you wish to receive your newsletter by e-mail?** ☐

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### 2) FEES & DONATIONS

☐ **$5 SENIOR** ☐ **$500 LIFE MEMBERSHIP**

☐ **$5 JUNIOR** ☐ **$1,000 CORPORATE MEMBERSHIP**
☐ **$10 INDIVIDUAL MEMBERSHIP** **PERSONAL DONATION AMOUNT:**
**$**_____
☐ **$20 FAMILY MEMBERSHIP** ***TOTAL AMOUNT PAID*:**
**$**_____

## 3) PAYMENT METHOD

☐ **CASH ENCLOSED**
☐ **CHEQUE ENCLOSED** *(Please make payable to the Bermuda Botanical Society)*
☐ **DIRECT DEPOSIT** *(BNTB a/c # 20-006-060-897188-100)*

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FOR OUR RECORDS:

Payment Rec'd: _____ Date card issued _____ Entered in D/B _____