



Bermuda Botanical Society

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Bermuda

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FROM THE PRESIDENT:

Despite the challenges of the past few months, the BBS Executive and others have been busy, and I am very pleased to announce that two projects at the Bermuda Botanical Gardens will soon be launched.

Tree Tales: a project which will engage children (and adults) as they learn more about the selected trees and take part in the various suggested activities. Children will be encouraged to send their responses to the Society. All children who respond will receive membership. Winning entries may be displayed on the BBS f/b page and/or in the newsletter. Many thanks to Marlie Powell, Felicity Holmes, and Jocelyn Morrison for their ideas and research in bringing this together.

Bermuda Botanical Gardens Endemic and Native Garden: the BBS will collaborate with the BBG staff in order to enhance this area. Garden staff will remove non-native plants and the soil will be improved with the addition of compost. The Society will be providing interpretive signage and additional endemic plants where appropriate. Light weeding and pruning will also be undertaken. If you are interested in assisting with this project please contact the Society at bdabotanicalsociety@gmail.com. It could be something as simple as weekly visits to the area and report any issues that may have arisen or a bit more 'hands on'.

The Gardens are presently short-staffed and given the current economic situation this is not likely to change. Definitely the time for the BBS to step up and support this incredibly valuable community resource for present and future Bermudians, residents, guest workers and tourists.

Citizen Science: Thank you to all those who have sent in their observations – the last one for the year will be the loquat – who's going to be first to spot those flowers. A favourite of many children and adults, the loquat, *Eriobotrya japonica*, originating in Asia, was introduced to Bermuda in 1850 by Governor Reid, and it has flourished here ever since. A valuable tree to the bees whose buzzing around the flowers can be heard as you approach.

If spotted, please send a photo of your sighting to bdabotanicalsociety@gmail.com, subject: Citizen Science, together with date and location.

Connecting with others: at this time, and going forward, I think it very important to establish links with other organisations concerned with the natural world, share ideas, information and resources. There are too many issues and problems facing Bermuda and our planet home to face on our own. Whilst none of us are too small to have an impact, together we can accomplish more. In that spirit, BSS has, several months ago, joined ECO – Environmental Coalition, and more recently, the Non-Profit Division of the Bermuda Chamber of Commerce.

cont.

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ECO (Environmental Coalition) Climate Change – Jeremy Madeiros, Land Conservation Officer, gave a very informative – and somewhat disturbing talk to ECO members focusing on rising sea levels caused by climate change, the effect of this on Bermuda, in particular the cahows, and measures being taken to safeguard them. Much work has been taking place to reestablish a breeding population on Nonsuch. Here the birds and burrows will be safer from storm surges brought about when hurricanes hit the Islands. The little islets that presently house many nesting burrows can be left 20' under water during one of those surges. Erosion is also a problem. The loss of cedars at Paget Marsh and Walsingham Glade (a former dry meadow which has become a salt marsh) to saltwater poisoning was noted, with reintroductions failing as the young cedars also could not cope with the levels of salt. Our world will be much poorer without these unique species. Let's live in a way that ensures a thriving biodiversity is maintained, locally and globally.

Wishing you all a safe September, and please, share your love of plants and botany, for we cannot live without plants.
Jennifer Flood

In our garden

Barometer bush, Texas sage, *Leucophyllum frutescens*

- text by Diana and photos by Nigel Chudleigh

The Barometer bush has recently been in flower in our garden following the heavy rain. It is an aptly named plant as it responds to humidity by flowering.

Most of the time we enjoy its silver foliage as its lavender flowers appear only very briefly after a rain storm and vanish a few days later. Its soft leaves are covered in fine hairs and are a grey-green colour.



It is also commonly known as Texas sage, though it is not a true sage or a salvia.

It is a native of Texas and the arid southwest of the USA and Mexico. It is a xerophytic plant, which means it is adapted to growing in the dry conditions of its native land. Hence, its survival on our dry sloping bed overlooking Harrington Sound. It prefers alkaline soils, full sun and good drainage, so is eminently suitable for Bermuda.

The Barometer bush (*Leucophyllum frutescens*) can be propagated from softwood cuttings.

It is not mentioned in Britton's *Flora of Bermuda*, published in 1918, so must be a relatively recent arrival to the island.

Other plants in our garden that respond to rain by flowering are the Rain lily or Bermuda crocus (*Zephyranthes citrina*), the Sandpaper vine (*Petrea volubilis*), and even the native Bermuda snowberry (*Chiococca alba*).

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Three trivia : 28. 29 , and 30

- by George Peterich

PRONUNCIATION AND ORIGINS OF PLANT NAMES

Magnolia, Dandelion, and Vetch

28. We start with Magnolia. It is named after the French botanist Pierre Magnol (1638-1715), Professor of Botany in Montpellier and director of the Botanic Garden there. The pronunciation of his name is obviously *Manyòl*. The French call the tree *manyolià*, with the accent at the end! So we are definitely not doing justice to the great botanist.

29. Next is another plant with a French name, at least for the English-speaking people. It is DANDELION. I always thought that this was strange name. But then I saw it on a menu as part of salad in French-speaking Switzerland. How appropriate I thought: Dent de Lion (lion's tooth)! That the English changed the spelling *dent* into *dant* is just a detail. Actually the name must have come across the Channel long ago, perhaps with the Normans, because the French call it *Pissenlit* nowadays. You can look up what that means.

30. Now we will see how pronunciation can be found as the reason for spelling, strange as that maybe. the example is VETCH. *Vicia sativa* is the Common Vetch. The TCH ending has come about because of the way vicia has been pronounced . The Romans pronounced it *Veesia* , but later *veetsjia* became popular by the way the Italians, and also the Roman Catholic clergy, pronounced it. Perhaps we can find the vernacular name for the plant from a time before Botanical names were introduced.

Malabar Chestnut or Guinea Peanut ? - *Pachira* sp.

Keren Lomas collected seeds from the *Pachira* tree. growing in her garden. The tree could be *P. aquatica*, the Malabar Chestnut, or it could also be *P. glabra*, the Guinea Peanut. If anyone would like some seeds, please contact me: elgreenebda@icloud.com

For some information on *Pachira*, have a look at Wikipedia and also try the following website: https://botanyphoto.botanicalgarden.ubc.ca/2010/01/pachira_aquatica_and_pachira_glabra/



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Extraordinary, glorious, superb!

- text and photo by George Peterich

This summer again there are plenty of Flame Lilies in a shrub border in our garden. They have been there for years and they have spread nicely. By seed I think, for they develop an abundance of quite large orange seeds. I picked a couple of nice flowers on a stem, that I wanted to study. That was not as easy as expected! The plant held itself to the surrounding branches by what turned out to be thin tendrils that grew actually out of the tip of the leaves. This really is unusual, and it makes one think that tendrils may be developments, or in other words, specialized leaves. The flowers found their place in a glass of water on the kitchen table. The flower buds are six-sided, with the tip pointed straight down, and when they open the 6 petals unfold, curl backwards, the tips point to heaven, and then the edges of the petals take on a waved shape, like flags in the wind.



The 6 stamens grow longer as they spread between the petals and the pistil between them grows into a very thin style, ending in a stigma with 3 very thin prongs. Stuff for a magnifying glass. And while this all happens, the flowers change from green to their glorious orangey-red and yellow appearance. Extraordinary, glorious, and indeed superb!

Now a tip for those who would like to see it all happen: You can find a You Tube “Gloriosa superba time lapse” on the Internet. There you can see in minutes what takes a little longer to observe in reality.

If you are interested in trees, you might like to read *The Hidden Life of Trees - What they feel, How they communicate. Discoveries from a secret world.* by Peter Wohlleben. It was a New York Times bestseller, which I usually regard with suspicion, but this book was easy to read and very interesting.

If you would like to read it, send me an email at elgreenebda@icloud.com

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Bay Grape in the landscape:

Bay Grape (*Coccoloba uvifera*) is a semi-deciduous flowering plant in the buckwheat family, Polygonaceae. It is commonly found along coastal areas and beaches throughout Colour.

It is typically 7 to 13 ft tall, with multiple trunks that divide at the base in a V-shape, forming a wide-spreading crown. In good soil and sheltered conditions it can sometimes grow up to 30 feet tall.

Leaves are large with a rounded saucer-shape, dull green, prominently veined and with a firm leathery feel to them. Most change colour in the hot summer months, becoming bright red, orange and yellow. New leaves are brown turning to bright green with red veins. The leaves are used as a backdrop of greenery by florists in arrangements.

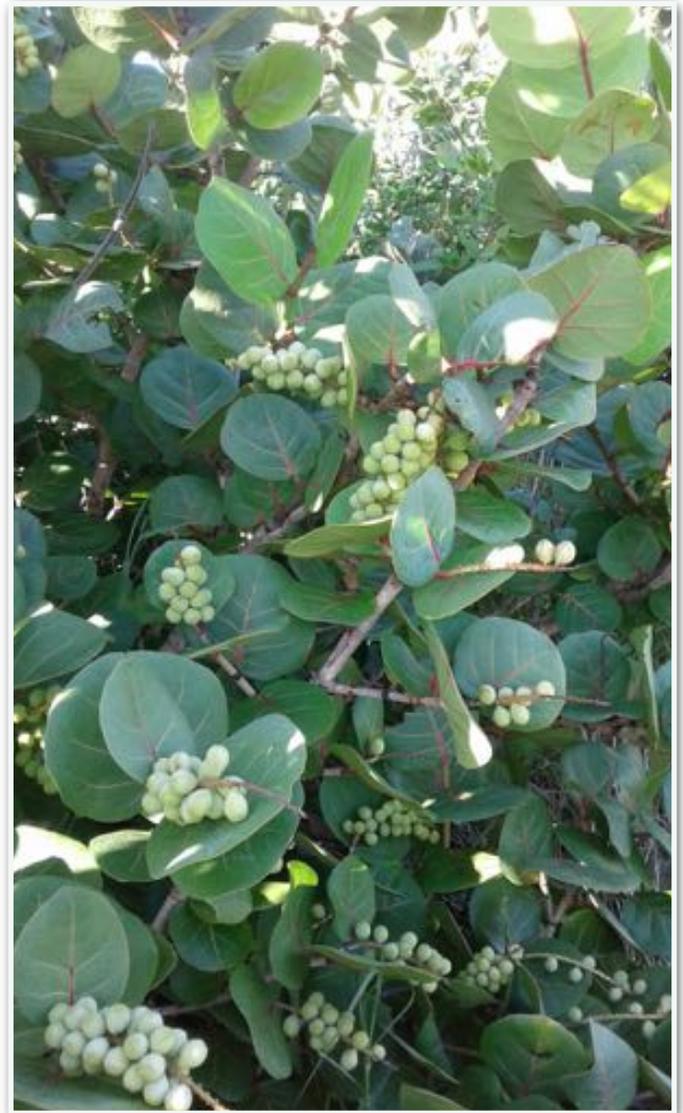
Flowers are small, white, fragrant and with female and male flowers on separate plants. They bloom mainly in spring, with occasional blooms the rest of the year and are followed on female plants by small, round, green fruit held in hanging clusters. The fruit ripens to a deep reddish-purple colour, that somewhat resemble a bunch of grapes. The fruit sustains some bird species. Ripe fruit can be made into jams, jellies and juice.

Bay grape growing on or near beaches provide much-needed shade to beachgoers seeking relief from the hot afternoon sun. It is a good candidate for planting to minimize beach erosion.

New plants can be started from seed, cuttings or using air layering techniques. Male plants do not bear fruit, so vegetative propagation is preferred to give control over the ratio of male to female plants. Plants grown from cuttings are reported to bear fruit earlier and grow faster than plants propagated from seed.

Bay grape has good tolerance to drought, salt, limestone, tidal flooding and windy conditions.

Jameka Smith,
Landscape Architect



Our changing flora

- text and drawings by Christine Watlington

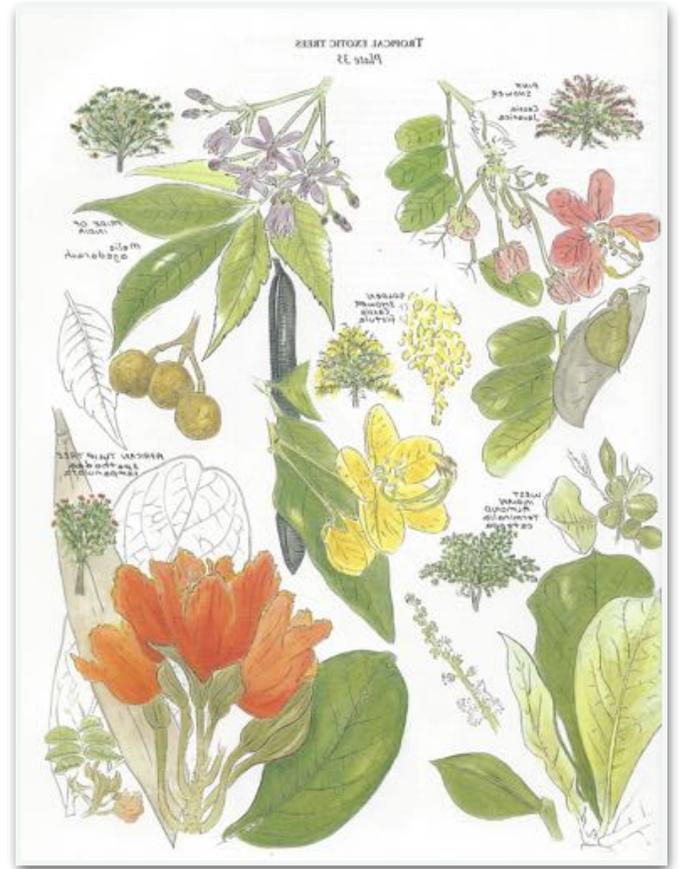
The changing flora of Bermuda is a challenge to control. Should Bermuda allow massive change and chaos or attempt to control habitats?

Bermuda is somewhat unique having such incredible growing conditions from tropical to temperate - plants arriving creating ever-expanding diversity - species from all over the world that adorn our gardens -possibly without equal anywhere in such a small and isolated place

One thing that not much thought given to is the 'new flora' evolving from seed from jet plane tires! So we sit mid Atlantic pondering what is to be done (if anything) and so very grateful that the community do try hard In continuing the eradication of severe invasive plants.

One thing I think most agree on would be the giant colourful trees that take ones breath away in our tropical paradise in most cases do not self seed so therefore have not become invasive, specifically the Pink Shower, Golden Shower, West Indian Almond, African Tulip Tree, Royal Poinciana, Jacaranda, Sword Tree, and Flame Tree.

Drawings from *Bermuda's Botanical Wonderland*.



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Purslane Potato Salad

Vegan, Gluten-Free, Wheat-free, Nut-free ~ Choose local organic ingredients for best results

6 servings, Prep & Cooking Time = 20 minutes

Ingredients:

1 kg fresh potatoes, red or white, or mixed with sweet potatoes or yams, large dice
¼ c olive oil
2 cloves fresh garlic, minced
2 tsp fresh ginger minced
2 tsp curry powder
1 tsp turmeric powder
1 c fresh purslane, chopped
¼ c fresh chives, chopped
Salt and pepper to taste

Method:

1. Parboil potatoes in advance and cool
2. Add ginger, garlic, and curry to heated oil in heavy saucepan, cook a few minutes
3. Add potatoes, browning on all sides over medium heat
4. Remove from heat, sprinkle turmeric evenly over potatoes
5. Add purslane and chives and turn a few times to mix evenly
6. Salt and pepper to taste, serve warm

Makes a nice savoury side dish to main meal or attractive in a big serving dish on a BBQ buffet. Stores well in fridge for a few days. Can be reheated.

Variations: ½ c of Veganaise or Vegan yogurt will give a creamier texture. Add before Turmeric in Step 3. Try any of Chico's spice mixtures instead of spices above.

Contributed by Marlie & Jocelyn Powell, Vegan/Vegetarian chefs at Kingston House B&B
KingstonHouse@BBBermuda.com



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Hibiscus Tea from *fresh* flower petals

-text and photos by Wendy McLeod

In Mexico hibiscus tea is made from fresh flower petals. As hibiscus flowers are plentiful year around there is no need for Bermudians to dry the petals either!

The ratio is 2 large hibiscus flowers (pink or red) for every cup of water. This recipe is for 4 cups of tea. But I often collect just a couple of flowers and pour a cup of hot water over them. I've never tried to drink it hot but cooled and poured over crushed ice it is very refreshing.

Find 8 large red or deep pink hibiscus flowers.

Rinse them well.

Pull off the petals and discard the rest of the flower.

Boil 4 cups of water in a large pot.

After it reaches a boil turn off the heat and toss in the petals.

Steep for 15 - 20 minuets. Any longer and it may get bitter.

Strain off the petals and you will have a dark purple liquid. It's not a particularly attractive colour at this stage. If the colour isn't dark purple then you probably don't have really red or pink flowers. The recipe will still work but the final colour will not be as vibrant as it can be.



NOTE: the lighter colour was made with Scots purse hibiscus and the darker one was with common pink.



Add a good squeeze of lime, lemon to get the glorious clear red colour. It's a spectacular colour and very refreshing but it is a mild flavour to which you can add mint, or more lime and honey or as one of my friends suggests gin or vodka.

Health benefits are listed in the link below - <https://www.healthline.com/nutrition/hibiscus-tea-benefits>

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Books

The following books – originally part of the BBS Gift Shop inventory – resurfaced recently. If any member is interested in owning one (donation please) or borrowing please email bdabotanicalsociety@gmail.com subject: Books

Plants That Merit Attention: Trees, The Garden Club of America

Parsleys, Fennels, and Queen Anne's Lace, Barbara Perry Lawton

Tree Ferns, Mark Large & John Braggins

The Jade Garden New & Notable Plants from Asia, Wharton, Hine & Justice

Flora's Orchids

The Conservation of Cultural Landscapes, editor M Agnoletti

A Cactus Odyssey Journeys I the wild of Bolivia, Peru & Argentina, Mauseth, Kiesling, Ostolaza

Buried Treasures Finding & Growing the World's Choicest Bulbs, Janis Ruksans

Aroids, Deni Brown

Conifers The illustrated Encyclopedia Vol 1 & 2

Euphorbias A Gardeners' Guide, Roger Turner

Hollies for Gardeners, Christopher Bailes

Designing with Plants, Piet Oudolf



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Dodder, the parasitic vine, makes another appearance!

- text and photo by Lisa Greene

In late July I was given a young basil plant, purchased from a plant nursery. When I glanced at the plant the following day, I noticed yellowish tendrils. I assumed they were tendrils from a vine that it might have been growing nearby. The next day they were still there and not only had they *not* shrivelled, they had *grown*. The next day they were even longer! At this point I was pretty sure it was dodder and notified the Dept. of Environment and Natural Resources ASAP. I was aware, from my time working in the Botanical Gardens, that dodder can be a serious problem affecting agricultural crops. I had also seen it recently, during a trip to Cuba, where it was growing in big mats and smothering shrubbery along the roadsides there.

There have been at least two instances of dodder found growing in Bermuda, prior to this one. Significant efforts were made to ensure that dodder didn't become established in Bermuda. Let's hope that this recent instance of dodder is eradicated as successfully.

Below are excerpts from Dept. of Agriculture and Fisheries Bulletins written at the time of the earlier dodder outbreaks:

Dodder - *Cuscuta* sp. is a leafless, yellowish-orange parasitic vine. Dodder has no chlorophyll (green pigment required for photosynthesis) and therefore is wholly dependent upon its host for nourishment Dodder affects a wide range of economic and ornamental plants. ... first found in May 1974 on petunia plants in a hotel garden. Plants were removed, burned, and the flower bed fumigated. It was thought that the dodder seed contaminated the petunia seed. No further trace was seen after treatment.

Feb 1984: found on farm land in Devonshire. The area was quarantined and the entire area, including a surrounding hedge was treated with "intense heat and then observed periodically for the reappearance of the vine." The grower's other fields were and surrounding areas were checked.

The advice at the time, from Ed Manuel, was for homeowners to check their properties for any strange yellowish-orange vines - and if found, to break off a piece and put it in a plastic bag (to prevent spreading any seed) and seal it and bring it to the Dept. of Agric. & Fisheries for ID.

Sept. 1984 - update article: the area was burnt, then sprayed on a regular basis with a non-selective herbicide to ensure that if any dodder seed germinates there would be no host plant available. With no host plant, the dodder cannot survive.



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Membership:

Membership dues were payable by August 31st. This can be done either with direct payment to:

BNTB Account No: 20 006 060 897188 100

Be sure to include your name in the 'Note for Beneficiary' box

Or by cheque mailed to the The Treasurer, BBS, PO Box HM 2116, Hamilton HM JX

Please complete the online form at the BBS website to ensure the Society has your up-to-date contact details.

- \$10 Senior
 - \$10 Junior
 - \$10 Student Over 18 and Under 25
 - \$15 Individual
 - \$25 Family
 - \$250 Life
-

Calendar of Events:

BBS Tours: Queen Elizabeth II Park, Sunday November 1st (rain date November 8th). Meeting at the Queen Street Gates, 2.30 pm. George, tour leader, has been exploring the Park in depth and discovered some very interesting plants there! As we may well still be under Covid Regulations the group will be limited to 15 – though a wait list will be kept should the regulations change. Book early!
bdabotanicalsociety@gmail.com subject: QEII Tour

AGM: the Horticultural Hall has been booked for the AGM on Saturday November 14th, 3 pm. Please save the time and date. Nominations for positions invited. New board members welcome!

Editor's corner:

It is not unusual that questions are posed in the newsletter or that feedback or information is requested by the author of an article, but responses from the readers are rare - either to these questions or requests, or to the articles themselves.

Perhaps the reader thinks that a response isn't really desired. In truth, we would love to hear from you, so don't be shy. Send an email to the author in question if the address is provided or to the editor of the newsletter, Lisa Greene (elgreenebda@icloud.com).

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