Bermuda Botanical Society

P.O. Box HM 2116, Hamilton, HM JX,
Bermuda
bermudabotanical.org

bdabotanicalsociety@gmail.com

MAY NEWSLETTER 2024

FROM THE PRESIDENT:

BBS at the AGRICULTURAL EXHIBITION

This year the BBS returned to the 'Ag Show' with a theme of Native and Endemic Plants. The display included included a very healthy yellow wood, Bermuda palmetto, peperomia, Bermuda cedar and southern hackberry; a children's quiz; the new booklets A Practical Guide to Garden Management in Bermuda; and the planting of mulberry cuttings and special loquat seeds.

The plantings, a selection of sweet loquats - large, pear shaped and cherry, white or yellow fleshed - and mulberry cuttings organised by BBS member Danny Simmons, were extremely popular with adults and children. It is hoped to follow up with the over 70 participants as to how well their plants grew.

The quiz invited participants to identify between pairs of seedlings - one a native/endemic the other an invasive. Over 60 entries received. The gift certificate generously sponsored by Bermuda Green Thumb went to the first correct answer drawn from the box - Matthea Pitcher.

Many thanks to all those who volunteered to provide plants (Peter, Marijke, Jennifer) and signage (Carol); so effectively manned the table (Keren, Debbie, Danny, Karla, Sue, Lyn, Alison, Liz, Lisa, Emma, Charlie, Juliet, Cheryl, Jennifer); assisted with set up and break down (Marlie, Lyn, Marijke, Jennifer, Emma).

Danny Simmons (far right) giving away loquat seeds and mulberry cuttings.

Lisa Greene, Lyn Vaughan and Jennifer Flood

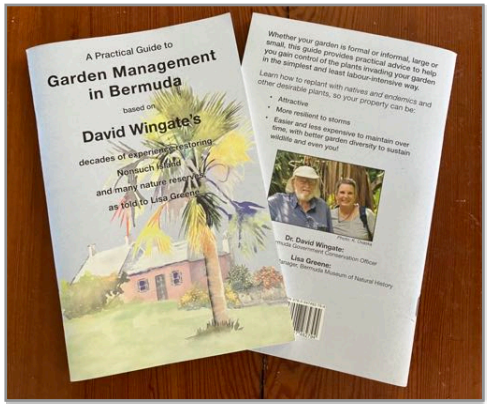
EASTER QUIZ

Thanks to Marlie Powell for organizing this year's children's Easter Quiz. The winner was Imani Clermond (not pictured) who received a gift certificate sponsored by Bermuda Green Thumb.

Jennifer Flood

Managing your garden is now a necessity

Lisa Greene



A new booklet has just been published: *A Practical Guide to Garden Management, based on David Wingate's decades of experience restoring Nonsuch Island and many nature reserves - as told to Lisa Greene.*

This free booklet is a must-read for anyone who owns property, manages property or is just interested! The focus is on how to remove invasives from your garden and how to re-plant with more desirable plants - preferably native and endemics *and* native compatible plants. Native-compatible plants are those introduced to Bermuda but (very importantly) they *don't* self-seed aggressively.

Managing your garden and transitioning it to more desirable plants will make it more resilient to storms, more attractive and easier and less expensive to maintain over time, with the added benefit of better garden diversity to sustain wildlife, and you!

The books are available, free, at The Aquarium front entrance, all of the Post Offices, The National Library, the major hardware stores, Aberfeldy and Green Thumb plant nurseries and Waterville (National Trust Headquarters).

We need all the help we can get to get them into the target hands, so please give copies to other people and/or spread the word!

"To encourage and support the study and promotion of the botanical sciences within Bermuda"

It is with sadness that we note the death Michael Darling, a longtime and Life member of the Botanical Society and big supporter of our plant sales. Although he trained in Agriculture and ended up in retail, Michael always had a *keen* interest in horticulture. It was a treat to visit his beautiful and well-thought out garden, home to a number of unusual trees. One of his favourite small trees was the Carib wood, *Sabinea carinalis*. (I suspect there are many around the island, propagated by Michael.) He will be missed.

Carib wood flower

Bermuda Botanical Society visit to Carter House gardens - April 6 2024

Jade Lovell

Grey skies and hard showers before we were scheduled to meet at 17th century Carter House on Saturday morning had some of us concerned this much anticipated tour might be cancelled but no, the weather brightened and we enjoyed a wonderful tour of the extensive indigenous gardens, led by Richard Spurling, President of St. David's Island Historical Society since its inception in 1998.

Carter House, circa 1700, is one of the oldest Bermuda vernacular farmhouses in Bermuda but over time, the property became covered in invasive trees and plants. Mr Spurling explained the 2018 Site Restoration Project involved removal of these invasives to be replaced by well over 40 different species of endemic and native trees, plants, grasses and shrubs, and the conservation of thirty endemic Palmettos, all of which he identified and discussed as we moved around the gardens.

During the second half of the tour Larry Mills, a director of St. David's Island Historical Society, explained how the 'first' homes of the English colonists would have been constructed. Mr Mills soon had us immersed in the intricacies of building a settlers' Cabben of 1610 as we stood in front of the one built by him in the gardens of Carter House to commemorate the 400th anniversary of the English settlement of Bermuda. The only one of its kind in Bermuda, it is a fine example of Mr Mills' research and expert ability to replicate how these 'mud & stud' and palmetto thatch type homes would have been built by the colonists with limited tools, and of materials totally foreign to them.

Mr Spurling's extensive knowledge and dedication to Carter House and gardens was impressive, and our thanks were extended to both Mr Spurling and Mr Mills. All agreed we would need to return another day to peruse the diverse contents and artefacts of the Carter House Museum itself.

If you have not already renewed your membership, please consider doing so and support the work of the BBS 'To encourage and support the study and promotion of the botanical sciences within Bermuda.

Use BDATIX at https://bdatix.bm/memberships.html Direct payments can be made to BNTB 20 006 060 897188 100 please be sure to include your name and membership renewal. If contact details have changed please email BBS: bdabotanicalsociety@gmail.com Cheque to P.O. BOX HM 2116 Hamilton HM JX be sure to include contact details.

Project Palm

Wendy McLeod

As everyone knows the Botanical Society has been working with our Botanical Gardens and Montgomery Botanical Gardens to understand and hopefully enrich our palm collection as well as updating the Palm Inventory based on the stellar work that George Ogden has done over the years. We'd like to update you on what's been going on behind the scene.

First, did you know that Andrew Street, Curator of Palms at Montgomery has validated 74 different species of palm in Bermuda? He and others locally are convinced that there are more rare palm species growing in Bermuda that are not yet on our list. The huge variety of palms is good news since Bermuda can't import new palms. … but we can easily propagate the ones we have. We are currently working with the palm list to identify any species that should be added to the Botanic Gardens or Arboretum, or are endangered in their natural habitat, or may be a nice landscaping feature. As Andrew Street has pointed out Bermuda's environmental conditions are well suited to growing a wide variety of palms and aside from the Chinese Fan Palm don't seem to reproduce in an invasive way.

Next steps –

- We'd like everyone to keep their eyes peeled for unusual palms
- We'd like to encourage more propagation of our own Bermuda Palmetto
- We'd like to enhance Bermuda's reputation in the worldwide Botanic Garden network as a palm repository
- We'd like to raise awareness of the incredible diversity of palms on our island. In Hamilton, out in our rural landscape or in suburban neighbourhoods the variety of palms is astounding. They give our island a tropical vibe, add a great deal of carbon sequestration for very little effort on our part and are an important part of our skyline and gardens.

More on this in future newsletters!

(Ed. note: a few palms are naturalising (self-seeding) and will need to be watched in case they become a problem.)

Cardinals feasting on sunflower seeds. Maybe you'll plant some in *your* garden - for the bees and the birds! Photos: Richard Brewer.

In Our Garden - Night-blooming cereus, *Hylocereus undatus*

Words & photos by Diana Chudleigh

The large blooms of the Night blooming cereus appear at dusk and last for just one night. Though if your are up early on a summer morning you can still see its extraordinary flowers before they wilt in the heat of the day.

Its bell-shaped flowers are white with a yellow centre and have several flowering cycles. Its flower is a giant of the cactus world and opens at night because its primary pollinators are nocturnal creatures such as bats and moths.

Night-blooming cereus flower

Night-blooming cereus is a member of the *Cactaceae* family. It is a tropical vine-like cactus with fleshy three-sided stems. It is epiphytic and grows on another plant, rock or stone wall and derives its moisture from the air. We believe, our main Night-blooming cereus grows on an old cedar stump as it was already in the garden when we bought the property. We have a second one growing by accident on a casuarina stump on the site of an early compost heap.

Night blooming cereus is native to dry areas of the Caribbean and Central America and likes a sunny south-facing position in Bermuda. It propagates almost too easily from the fibrous aerial roots on the underside of its stems and has become invasive in China, Australia, South Africa and Cuba.

It needs regular cutting back or pruning, which is not an easy job. It is also difficult to dispose of the cuttings as they sprout back into life if thrown onto a composite heap and its succulent stems make it difficult to burn.

Listed as growing here in the late 19th century in *The Botany of Bermuda* by Sir J H Lefroy, published in 1884. He was governor here from 1871 t0 1877.

Night-blooming cereus is supposed to produce an edible fruit, the dragon fruit or pitaya, but I have never seen one growing in Bermuda though I have seen them for sale in a local supermarket. Various YouTube videos show you how to grow your own fruit by hand pollinating and then how to eat it.

Clump of *Hylocereus undatus* growing over a cedar stump

Naturalized Solitaire Palms

Text and photos - Alison Copeland

I certainly had my palm awareness raised during the Botanical Society's palm awareness week in January. I was fortunate to visit Blue Hole Park and the Walsingham Trust's nature reserve with Andrew Street from the Montgomery Botanical Center on January 31st. On previous visits to Walsingham, I had noticed an ornamental palm growing on the side of the path and had asked Jennifer Flood if Andrew might identify it for us while he was on the island. The three of us ventured into Walsingham and Andrew quickly identified the palm as *Ptychosperma elegans* – the Solitaire Palm. He was able to show us some of the distinguishing characteristics, such as the tattered appearance of the frond ends. We also found several seedlings, which are a distinctive V-shape. The fronds of the seedlings are distinctly ridged on the top, and smooth underneath (unlike Chinese Fan Palm seedlings which feel ridged on both the top and underside). Andrew collected some examples, which he showed those gathered at Daylesford later that evening, alongside an example of the small, red berries from a Solitaire Palm.

Andrew Street (Montgomery Botanical Center) and Jennifer Flood with a Solitaire Palm in the Walsingham Trust's reserve, and (right) a seedling.

Armed with this new knowledge, I began a series of vegetation surveys in Blue Hole Park during the first week of February. I examined 11 sites in the dense fiddlewood/Chinese fan palm/allspice forest on Blue Hole Hill and found seedlings or saplings of Solitaire Palm at 4 sites. At one location, I found a mature Solitaire Palm at least 25 feet in height protruding above the allspice canopy, surrounded by *hundreds* of seedlings.

Species that escape cultivation and form self-sustaining populations in wild habitats are commonly referred to as 'naturalized'. *Ptychosperma elegans* has been recorded as naturalized in Bermuda since at least 2003 (Kairo et al., 2003). This spring I will be doing further surveys in the Walsingham Trust reserve adjacent to Blue Hole Park, and other sites which will provide data on how widespread this species currently is in wild habitats around the island.

According to Kew's Plants of the World Online, *Ptychosperma elegans* (R.Br.) Blume is native to Australia and found in the dry tropical biome of Eastern and Northern Queensland. It was introduced to Bermuda as an ornamental palm prior to 1914 (Britton, 1918). It is considered a category II invasive species in Florida, meaning it has spread in the wild but has not caused documented impacts to native species or habitats (FLEPPC, 2019). It also appears on the invasive plant list of Cuba (Oviedo Prieto and González-Oliva, 2015).

Mature Solitaire Palm with seedlings underneath at Blue Hole Park.

It will be interesting to review the completed survey data in the coming year to see just how widely naturalized Solitaire Palms are in Bermuda. Now, thanks to Andrew, we know what species we are looking at.

References

Britton, N. L. 1918. Flora of Bermuda (Illustrated). Charles Scribner's Sons, New York USA. pp.585.

FLEPPC. 2019 List of Invasive Plant Species. Florida Exotic Pest Plant Council. https://floridainvasivespecies.org/plantlist2019.cfm

Kairo, M., B. Ali, O. Cheeseman, K. Haysom and S. Murphy. 2003. Invasive Species Threats in the Caribbean Region. Report to the Nature Conservancy. CABI Caribbean and Latin American Regional Centre, Curepe, Trinidad and Tobago.

Oviedo Prieto, R. and L. González-Oliva. 2015. Lista nacional de plantas invasoras y portencialmente invaoras en la Republica de Cuba. Bissea 9 (numero especial 2): 1-88.

Plants of the World Online (POWO). 2024. Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:669378-1 . [Accessed 14th Feb 2024].

Oaty Loquat Squares

Raw Vegan, Gluten-Free, Wheat-free ~ Choose local organic ingredients for best results
Makes 48 2-bite squares, Prep Time = 60 minutes, Bake time = 35 minutes

Ingredients:

8 oz flour, gluten-free 1:1 Bob's Red Mill
7 oz rolled oats, gluten-free
5 oz sugar, Turbinado, brown or golden
½ tsp baking soda
¼ tsp cinnamon, ground
8 oz vegan butter (2 sticks), chilled
18 oz ripe loquats, seeded and stewed*
1/3 c water, boiled
1 tsp lemon juice
¼ tsp sea salt

* Loquats are quite juicy and mixture might need thickening--add arrowroot powder as needed (1-2 tablespoons) during cooking. A thicker mixture will keep oat crusts from getting soggy.

Method

1. Clean, seed and stew loquats, set pot aside to cool
2. In a food processer, add dry ingredients and pulse a few times to blend
3. Add butter in small chunks and pulse until combined
4. Press 2/3 of the oat mixture into the bottom of a 9"x12"x1" metal pan and set aside
5. Spread loquat mixture evenly over bottom crust
6. Crumble remaining oat mixture evenly over loquat layer (small gaps are ok)
7. Bake at 350°F for 35 minutes or until top begins looking golden
8. Allow to cool and chill in fridge for several hours before slicing and serving

Makes a healthy, satisfying snack straight out of the fridge or can be served warm for dessert with a scoop of vegan vanilla ice cream.
Contributed by Marlie & Jocelyn Powell, Vegan/Vegetarian chefs at Kingston House B&B
KingstonHouse@BBBermuda.com

Children's Corner - from Jocelyn Morrison

Can you change the taste of a "plain old" lettuce leaf? (NO salad dressing allowed! 😄)
Lets' find out what this fun experiment teaches us!

This is what you will need:
3 large lettuce leaves of similar size
3 jars or beakers
Water
Sugar
Salt
teaspoon
Scissors

This is what you do:
1 . Fill the jars or beakers with water until half full.
2. In one jar add 1 teaspoon of salt
3. In another add 1 teaspoon of sugar
4. Add NOTHING to the third jar
5. Stir the water in the jars well to dissolve the salt and sugar.

6. Place one whole leaf into each of the jars. Make sure the very end of the stem is in the liquid.
7. Leave the jars alone for at least 8 hours or overnight. (I did it in the morning and checked the leaves late afternoon.)

8. Then snip off a small portion at the top of the leaf. Taste a piece of each one in turn. How do they tase? Is there a difference? How did the leaf in the plain water taste?

9. If there is no difference in the taste leave them longer. You can add another teaspoon of salt and sugar to the appropriate jars too. Leave them for a few hours and taste again.

What has happened?

*In this experiment the lettuce leaves have absorbed the water in the jars from the base of the each leaf stem up into the leaves.

*This process is called capillary action.

Cont.

*It is the same process that makes it possible for the plants' roots to absorb water and other food nutrients from the ground all the way up into the different parts of the plant.

P.S……If you leave the lettuce leaves in the waters for 3,4 or 5 days something else happens.

What have you observed? …….I wonder why?? 🤔

**********What do you think? 😄 **********

*Send your answers to : BDABOTANICALSOCIETY@gmail.com and win a Junior membership and prize.

Resource:
STEMKIDS.co

Check out these links too:
LittleBinsforLittle Hands.com
ScienceBuddies.org
LivingLifeandLearning.com/kids

Events - A varied and interesting selection of activities over the coming months include:

Saturday May 18 - visit to private garden in St George's. See information sent in earlier email or contact Wendy at island.clan@mac.com

Wednesday May 28th, 7 pm - "The 2024 Botanical Bridges Congress: BIG lessons for the Bermuda Botanical Gardens"- a presentation by Danny Simmons about his visit to Cartagena, Columbia to attend the CCABGN and its relevance to Bermuda's Botanical Gardens. This will be held in conjunction with the Bermuda Zoological Society Lecture Series. Definitely a NOT to be missed event.

Presentation Summary:
168 of the world's sovereign nations agree one thing: plants are universally recognized as having unique multi-functional value but currently face great risk of global extinction. The Bermuda Botanical Gardens are part of a professional network that has a critical role to play in reversing the global extinction trend within our region. This presentation introduces the Caribbean and Central American Botanic Garden Network and highlights 6 insights, lessons and opportunities for Bermuda arising from its recently concluded 2024 Botanical Bridges Congress. It reinforces the call to implement strategic measures put in place and shares progress on key initiatives to date."

Please email bdabotanicalsociety@gmail.com if interested in attending any of the above.