



Bermuda Botanical Society

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NOVEMBER NEWSLETTER 2023

FROM THE PRESIDENT:

Many thanks to those who turned out for the Annual General Meeting held on Saturday November 18th at the Horticultural Hall. The business part of the meeting went well, with the President's report highlighting a busy year, with many interesting, informative, and enjoyable activities. Full report will be available on the website. The Financial report showed the BBS in good standing with slight overall increase in funds.

Executive elections-

President Jennifer Flood

Vice. Peter Lee

Sec. Marlie Powell

Compliance Officer Marijke Peterich

Media. Lara DuPlessis

Treasurer Lallitah Durgah

An interesting presentation on Highgrove, King Charles III sustainable garden and farm (in the Cotswolds, northeast of Bristol) followed. This had many of us deciding it is a 'must' to visit if you happen to be in England. Thank you to Wendy McLeod for this. Note you do need to book your visit ahead of time if you want to visit the garden.

A new venture this season is the partnership with Dalton Tucker Primary School. New BBS member Winnie Smith was inspired by Alison Copeland's presentation on the Extinction Threat to Bermuda's Endemic Species to approach us and ask how she could help bring Bermuda's botanical wonderland to young people. Discussions led to a programme in which 6 different groups of students from Dalton Tucker will be taken to the Botanical Gardens for a guided tour by Winnie, highlighting the endemics, natives and invasives, which ties in nicely with their curriculum. BBS will be paying for the minibus transport to enable this. If this proves successful, it is hoped to include other schools in future.

University Botanical Garden, Queretaro, Mexico

In the last newsletter there was a photo of a large, flowering *Beaucarnea recurvata*, the pony tail 'palm'. A tree-sized succulent, and member of the agave family, it is named for the long, delicate leaves that drape over the branches, which give it a "ponytail" effect. Another common name, Elephant's foot comes from the shape, colour and texture of the lower trunk. The plant, endemic to Mexico, has become endangered in the wild. I was visiting Queretaro in October, and managed to get a guided tour of the University Botanical Garden which specializes in Mexico's endangered endemics

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– and the first thing pointed out was their collection of *Beaucarnea recurvata* – rescued from building sites or other developments. Usually kept as house plants, they develop rather differently when allowed to grow freely (below left). On the right is a pot-bound specimen.



Endemic medicinal plants also formed part of the collection. Endangered endemic succulents and cacti are being grown from seed and or cuttings. I also learned how to tell the difference between spiky euphorbias and cacti! The latter have distinct, specialised structures called areoles from which develop spines or flowers. Areoles (photos left) are an identifying feature of cacti; Euphorbias (photo right) do not have this!



Experimental work with the properties of cannabis, particularly antihistamine properties, is also being undertaken.

The guide, Director of the Garden, was extremely informative – fortunately his English was a lot better than my Spanish – and he was dedicated to preserving Mexico’s unique flora. He was also very good with the 5-year-old grandson, even arranging for him to visit the university Arachnid collection!

Jennifer Flood

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Succulent propagation at the University Botanical Gardens, Queretaro, Mexico.



Winifred Smith discussing and encouraging Dalton E Tucker Primary School students to find examples of invasive, introduced, native and endemic plants.

Help Bees Drink without Drowning Wendy McLeod

This Spring I visited Highgrove which is King Charles' organic farm and gardens in the southern Cotswolds. The entire garden – 40 years in the making – was jammed packed with ideas for no waste, working with nature, and encompassing not just flowers but trees, fruit, rare animals and insects.



One idea which I've brought back to Bermuda is that bees prefer to get their water from damp moss. Highgrove had the most amazing fountain that had been allowed to crust over with moss for their royal bees. I had often found bees drowned in my (much smaller) bird bath. I've installed a piece of Bermuda stone in the center of my bird bath and kept it damp until a mossy coating formed. Lo and behold the bees definitely make use of it and even the occasional butterfly. (It's hard to tell, but there are four bees in this photo!)



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In our Garden - Pomegranate, *Punica granatum*

Words by Diana Chudleigh. Photos by Diana & Catherine Outerbridge

Pomegranate is an attractive flowering shrub with an ancient history which bears an unusual fruit packed with healthy nutrients and antioxidants. It is said to have grown in the Garden of Eden and its fruit may have been the forbidden fruit or “apple” with which Eve tempted Adam. In Greek mythology Hades, the god of the underworld, used pomegranate seeds to trick Persephone into returning to the underworld for a few months each year.

Pomegranate plants are native to Iran and northern India but have been cultivated since ancient times in the Mediterranean regions of Europe, Asia and Africa. Afghanistan produces excellent quality fruit. It was amongst the first fruit cultivated by man. Pomegranate was an early arrival in Bermuda where it is said to have been grown since 1621 and was used by the early settlers for making herbal teas, dyes and tannins.

Governor Lefroy writing in ‘The Botany of Bermuda’ in 1884, suggested *Punica granatum* was introduced to the island by “early navigators” and that it was “quite naturalized and often used in fences.” Similarly, Nathaniel Lord Britton, wrote in ‘Flora of Bermuda’ in 1918, “Commonly planted, and locally escaped from cultivation and naturalized.” (If anyone knows of naturalized Pomegranates today, please let me know.

Pomegranates are planted in our garden as an interesting ornamental, as rarely do we produce large useable fruit in our humid and windy climate. The plant can be propagated from seed or hardwood cuttings and is available in local plant nurseries in both a dwarf and a taller variety. It is in the *Lythraceae*, or Loosetrife, family, the same family as Crape myrtle. It has small evergreen leaves and small showy orange-to-red funnel shaped flowers which bloom in the summer.



Flowers with fruit forming in base of flower



Pomegranate fruit

Male and female flowers are on the same plant. The unopened male flower is shaped rather like a peanut and is smaller than the female flower. It is bell-shaped with pollen producing stamens. The female flower is longer and vase-shaped with a pollen attracting stigma. The fruit forms in the autumn in the

ovary at the base of the female flower. The round fruit contains many edible seeds covered with a fleshy sack and is widely used in the juice industry. Grenadine, made from pomegranate, sugar and lemon juice, is a sweetener and colourant used in cocktails. Its seeds are used as an exotic food garnish.

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A book for your reading list

Lyn Vaughan

"Brave The Wild River :The Untold Story of Two Women who mapped the Botany of the Grand Canyon"

by Melissa L. Seigny

Winner of the 2023 National Outdoor Book Award for History/Biography

This is a fascinating story not just of these two women but also a summary of botany's history and the history of the geology, flora and fauna, and the people as well as the changing history of the area. It is factual and amusing. I found it engrossing.

It opens with the tale of Lois Jotter, the mentee of Elzada Clover, both from the University of Michigan at Ann Arbor, left alone after chasing an adrift boat with LaPhene "Don" Harris who returned without her to the other four people with them, Elzada Clover, Norm Nevills, leader of the expedition, Bill Gibson and Eugene Atkinson who left the expedition at the half way mark as did Don Harris. In the second half of the river travels, the boatmen were Lorin Bell and Dell Reed

There were three boats involved, named "Wen" (after Norman Nevills' father), the Botany and Mexican Hat. Nevills decided not to name one of the boats after his wife as John Wesley Powell had done. The wife's maiden name was Doris Drown. John Wesley Powell, an American geologist, U.S. Army soldier, explorer of the American West, professor at Illinois Wesleyan University, and director of major scientific and cultural institutions travelled the Colorado River in 1869 as a scientific journey. It failed but he and his fellows survived. There was a young couple, Bessie and Glen Hyde who disappeared and were never found. Mention is made of Charles Darwin and his relationship with Asa Gray, a U S botanist. Almira Hart Lincoln Phelps published Botany for Beginners in 1833 which led to many women's involvement in botany. Men said it was a suitable subject for them and effeminate youths. Racism and sexism were part of the story of botany. The author tells the Native Americans versions and reveals that contrary to preservationist claims that it was not cared for, the Natives had been looking after the land for generations.

There are so many people and stories, too numerous to mention here. Their stories are part of the Grand Canyon story which is told in this book. I could not put this book down. You can reserve it at the Bermuda National Library if you are a member. Membership is free.

From by the Publisher (www.wwnorton.com):

"The riveting tale of two pioneering botanists and their historic boat trip down the Colorado River and through the Grand Canyon. In the summer of 1938, botanists Elzada Clover and Lois Jotter set off to run the Colorado River, accompanied by an ambitious and entrepreneurial expedition leader, a zoologist, and two amateur boatmen. With its churning waters and treacherous boulders, the Colorado was famed as the most dangerous river in the world. Journalists and veteran river runners boldly proclaimed that the motley crew would never make it out alive. But for Clover and Jotter, the expedition held a tantalizing appeal: no one had yet surveyed the plant life of the Grand Canyon, and they were determined to be the first. Through the vibrant letters and diaries of the two women, science journalist Melissa L. Seigny traces their daring forty-three-day journey down the river, during which they meticulously cataloged the thorny plants that thrived in the Grand Canyon's secret nooks and crannies. Along the way, they chased a runaway boat, ran the river's most fearsome rapids, and turned the harshest critic of female river runners into an ally. Clover and Jotter's plant list, including four new cactus species, would one day become vital for efforts to protect and restore the river ecosystem. Brave the Wild River is a spellbinding adventure of two women who risked their lives to make an unprecedented botanical survey of a defining landscape in the American West, at a time when human influences had begun to change it forever".

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

Sears Cave Tour Sunday, January 7, 2024 2 – 4 pm: Alison Copeland will discuss the introduction of ferns to this area. With permission of Audubon Society

Andrew Street visit January 29 – Feb 3rd Andrew will be visiting not only to follow up work from his first visit but to also collect palm seeds/berries for propagation at MBG. If anyone has a palm in seed at the moment – please consider collection and labelling for Andrew, or if not now, invite Andrew to visit to collect seeds himself.

Alison Copeland, on her research at Walsingham April 2024 – date to be announced

Red Barracks Garden visit, home of Michael Spurling - date to be announced

Carter House & Gardens Tour May 2024 - date to be announced

Further details and sign-up requests will be sent closer to the dates.

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

Volunteer Opportunities

There are vacancies on the BBS Executive Committee. Help would be appreciated on an ad hoc basis with various undertakings educational activities, research, future plant sales, endemic/native garden, tours, visiting speakers, signage.

Flowering now:

Moon flower (*Ipomoea alba*) - seen at Clearwater Nature Reserve, St. David's. I have seen this species flowering in March, May, August and now November/December. It is in the same family as the common morning glory and sweet potato.

Loquat (*Eriobotrya japonica*) is covered with flowers and the scent from them hangs in the air on calm days. I hope this means we're going to have a bumper crop of loquats this year!



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Children's Corner from Jocelyn Morrison



Christmas Gnomes:

You will need:

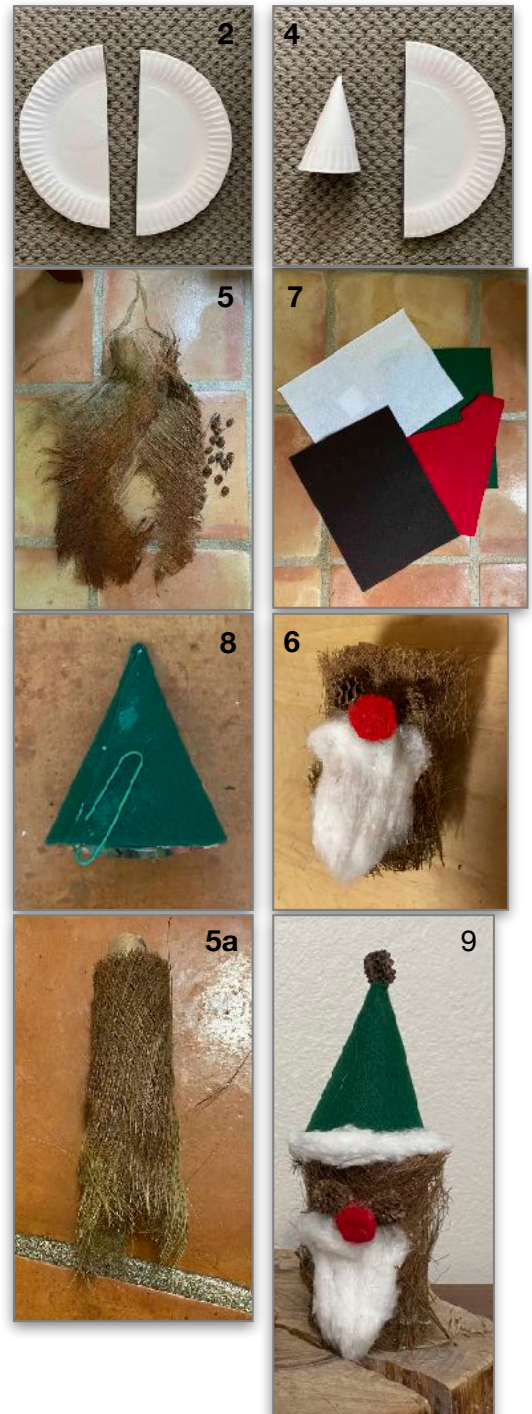
- Cardboard toilet or paper towel roll for your Gnome's body.
- Piece of card for the hat or 10" paper plate pic
- Cotton wool or natural cotton from a cotton plant for the beard.
- Felt for the hat enough to cover your cone. You can use any firm fabric (Pic #7)
- Casuarina berries for eyes and nose. (#5/6)
- Dried palmetto or Chinese fan palm fibres. (You will find these fibers & berries on the Railway trail).

White glue
Scissors
Paper clips
Black marker

Method:

1. Collect all of the material together. (The fibres and berries will probably need drying out first!)
2. Cut out the section of the card circle unless using a paper plate. (#2)
3. Cut in half then fold around into a cone shape to fit around the top of your roll. Trim off the excess. (#4)
4. Cut the same shape out the felt.
5. Spread glue all over the cone and carefully wrap the felt around the it. You can use the paper clips to help hold it in place while it dries. (#8)
6. Cut enough fiber to wrap around the roll and then glue the roll to cover. (#5/5a)
7. Carefully wrap the fiber around your Gnome's body. Use the paper clips to hold it together while it dries. Trim off the extra fiber from the top and bottom.
8. Use the black marker to make the eye on the casuarina berries then glue them on for the eyes and one for the nose. Here you could cut a circle of red felt for his nose instead or any other dried berry
9. Glue on some cotton for the beard. Pull it gently into shape.
10. When the hat is dry, place a line of glue just inside the rim and place on top of the Gnome's body. Hold until it feels firmly in place.
11. Push a berry into the top of the hat. A little glue will stop it falling out. You can glue a strip of cotton around the brim of the hat. (#9)

Make a couple to decorate your table or window sill.
Have fun!



Italian Cookies

Antichi Biscotti Fiorentini

Vegan, Gluten-Free, Wheat-free

Choose local organic ingredients for best results

Makes about 2 dozen 3" cookies, Prep Time = 20 minutes Bake Time = 16 - 18 mins

Ingredients:

390 gm Bob's Red Mill gluten-free 1:1 flour
220 gm caster sugar
½ tsp baking soda
227 gm (2 sticks) vegan butter
3-4 tbsp. water
2 tsp almond extract

50 gm sliced almonds
50 gm chopped pistachios
60 gm chopped dried cranberries

Method:

1. Preheat oven to 350 degrees F (multi-rack, convection if available)
2. In a food processor, combine flour, sugar and baking soda
3. Add butter (in chunks) then water and almond extract.
4. Pulse until soft and doughy, add a bit more water if needed
5. On parchment paper, lightly floured, roll out half the dough to ¼" thickness
6. Using a 3" cutter, cut circles half an inch apart and remove excess dough
7. Refrigerate excess dough until ready to roll out
8. Slide cut-outs on paper onto baking sheet, sprinkle lightly with nuts and cranberries
9. Bake for 15 -18 minutes. Cookies will be pale like shortbread.

Variations: Can use dried sour cherries. Sprinkle with a bit of sugar for sweeter biscuits.

These simple, crispy cookies make a popular coffee break snack and look festive on a serving plate with other dainties for festive occasions.

Contributed by Marlie & Jocelyn Powell, Vegan/Vegetarian chefs at Kingston House B&B
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