



Bermuda Botanical Society

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NOVEMBER NEWSLETTER 2020

FROM THE PRESIDENT:

The AGM was well attended this year despite Covid and inclement weather! Many thanks to all those members who turned out.

The Executive was unanimously re-elected

President	Jennifer Flood
Vice President	Peter Lee
Treasurer	Lallitah Durgah
Committee Members	Marlie Powell, George Peterich and Christine Watlington

BBG Endemic and Native Area

Work has been carried out by Parks staff and we hope to begin planting additional endemic and native plants late November or early December. If you would like to join this group please contact the Society at bdabotanicalsociety@gmail.com subject Endemic/Native area.

If you visit the BBG, please take a look at the area, and if anything seems amiss do let us know.

Tree Tales

The Tree Tales Tour was officially opened in October. The Minister for Parks, Col. Burch, was unable to attend, but did send his best wishes. It was a beautiful afternoon and those attending enjoyed the walk.

If you haven't already seen the signs, well worth a visit. Organised groups of children along with individuals have followed the tour, and a number of entries have been received. The BBS website has a section dedicated to Tree Tales, do have a look.

Jennifer Flood

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

In our garden: Bougainvillea (genus *Bougainvillea*)

Text by Diana and photos by Nigel Chudleigh

Bougainvilleas provide bright splashes of long lasting colour in our garden. They keep their seemingly everlasting colour because what we are seeing is not the flower, but the bract of the plant. (It is similar to the Poinsettia which is popular at Christmas for their bright red bracts, their flowers being insignificant.)

The actual flower of the bougainvillea is small, waxy and white. It grows in clusters of three, surrounded by bright coloured bracts, that are thin and papery. The bracts continue to provide colour long after the flowers have faded.

There is a wide choice of colours and a number of different ways in which bougainvilleas may be grown. The dry weather this year has favoured the many bougainvillea plants growing in our garden. We have six or seven different varieties but the late Ed Manuel had more than 20 different ones in his garden in Devonshire.

They may be grown in the ground as shrubs and climbers and also in containers. It is a drought tolerant plant.



Bougainvilleas come in single and double varieties and even with variegated leaves.

Bougainvillea is a woody vine or shrub, with thorns, native to South America. It was introduced to Bermuda during the time that Sir John Henry Lefroy was governor of Bermuda in the 1870s. Plants flower on new wood and may be propagated by cuttings.

The botanical name is the same as its common name, which makes life easy. It is named after the French Admiral Louis Antoine de Bougainville who circumnavigated the world along with botanist, Philibert Commerçon. However, it is thought that the first person to observe the plant may have

been female botanist Jeanne Baret. She was Commerçon's assistant and lover. She accompanied him on the voyage, disguised as a man, because she was not allowed on the ship as a woman. She thus became the first woman to circumnavigate the globe.



Bougainvillea may be grown as a vine on a trellis



The actual flower of the bougainvillea is small and white and grows in clusters of three surrounded by colourful bracts.

["To encourage and support the study and promotion of the botanical sciences within Bermuda"](#)

In Praise of Nasturtium (*Tropaeolum majus*)

text and photos - George Peterich

Nasturtium is such a successful introduction into the Bermuda flora, that it is like a native. You can find it everywhere, most of the year. The plant is an annual, and the reason to write about it now is that the first leaves are now appearing above ground. The flowers can be seen from the early spring for quite a few months. The plant is an annual and disappears completely in the late summer.

The leaves and the stems are edible and even the flowers are. You can put them in a salad. The taste is very much like watercress. The fruits can be pickled and used like capers.



I will give a brief description from a botanical viewpoint. The Flowers have five petals and five sepals. Two or three of them are fused together, forming a pointed tube. This is the reason why the scientific name is *Tropaeolum*. This comes from the Greek word for trophy. It came about because helmets, taken as spoils from warfare would be kept as trophies. The back of the flower reminds of a helmet, as ancient warriors wore them. And the leaves are peltate! That is: they have the shape of a shield.

In the Netherlands the plant is called Oostindische Kers, which translates as East Indian Cress. But the plant originates from Peru and Colombia. This shows how plants have travelled around the world. Another example of a wrong name is the Cape Gooseberry, also from Peru.

Let's leave the botanical observations now and take a look at the incredible beauty and variety of the flowers. There are mainly various shades of yellow and orange, but there are a few exceptions, mostly rare, for example dark red and even pink.

But that's not all. Taking a close look at the flowers you see that there are many differences. It is the design that varies. There are markings on the petals that seem to have been applied with some sort of a brush, and the effect of it varies with the intensity of the colour. Here is proof of a great designer, who seems to be still at it.

A bit of Philosophy: If there was a superior design it must have been that there would be no definite design, but an infinite number of designs.

Note: if you want to collect the fruit for pickling, the best time to get them is at the end of the summer, when the plants are just about to disappear.



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Trivium No. 31

- by George Peterich

Enchantment of small things.

The tiniest flowers can now be seen on the Fern Asparagus (*Asparagus setaceus*). They are only 3 or 4 millimetres across, but a joy to look at through a magnifying glass. They are complete with 6 petals, and an ovary and pistil, surrounded by 6 stamens.



More fish because of the forest?

Forests and their connection to us and the world.

- by Lisa Greene

Earlier this year, I had the pleasure of reading

The Hidden Life of Trees, What they feel, How the communicate, by Peter Wohlleben, 2015.

The following excerpt from the chapter titled “More than just a Commodity” struck me and I thought I would share it because, although we don’t have forests in the sense of those in larger countries, we have wooded areas that are worth cherishing and preserving; they too, surely, also have a role to play in the connecting and supporting of us and the world.

The “hope that in the future forests will continue to live out their hidden lives, and our descendants will still have the opportunity to walk through the trees in wonder. This is what this ecosystem (the forest) achieves: the fullness of life with tens of thousands of species interwoven and interdependent. And just how important this interconnected global network of forest is to other areas of Nature is made clear by this little story from Japan. Katsuhiko Matsunaga, a marine chemist at Hokkaido University, discovered that leaves falling into streams and rivers leach acids into the ocean that stimulate the growth of plankton, the first and most important building block in the food chain. More fish because of the forest? The researcher encouraged the planting of more trees in coastal areas, which did, in fact, lead to higher yields for fisheries and oyster growers.”

In Bermuda, seabirds such as our endemic cahows and native longtails and terns, eat fish and squid from the sea and, when raising their young, bring nutrients in the form of guano to our islands. Maybe the plankton that benefitted from forests in Japan (or Europe or the Americas), were part of the food chain that fed the fish and squid that fed our seabirds.

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Fruit trees in the home Garden

- Jameka Smith, Acting Park Planner, Department of Parks

There's not much that can compare with plucking a juicy peach from your own fruit tree. Fresh fruit is one of nature's most delicious products.

Here are a few tips for determining the best fruit trees for your garden. When choosing your fruit tree you need to consider:

- the amount of shade the tree will provide
- what wildlife it may bring to your garden
- how fast growing it is
- the type of fruit you want
- what you want to do with the fruit
- does it give year round interest

Fruit trees that can be grown in Bermuda are:

-*Citrus sinensis* (**Orange**): very sweet, juicy and has a long ripening period. The thick skin may still be green when the inside fruit is edible and delicious.

-*Citrus aurantifolia* (**Lime**): small thorny tree with an aromatic smell.

-*Citrus limon* 'Meyeri' (**Lemon**): known locally as the rough lemon.

-*Persea Americana* (**Avocado Pear**): large, fleshy pear-shaped fruit with case, green-purple colours when ripe.

-*Musa acuminata x paradisiaca* (**Banana**): hanging bunches of cream-yellow flowers with red-violet bracts are followed by delicious yellow bananas.

-*Carica papaya* (**Paw paw**): flowers greenish-yellow followed by fruits attached to the upper stem. These can be eaten when green as a vegetable or when ripe yellow as a fruit.

-*Psidium guajava* (**Guava**): yellow edible fruits are used in jams and jellies.

-*Annona squamosa* (**Sugar Apple**): the fruits are covered with large prominent knobs. These small divisions fall apart when the fruit is ripe.

-*Prunus persica* (**Peach**): white flesh and pink pale yellow, furry skin.

-*Morus nigra* (**Mulberry**): flowers in drooping catkins followed by delicious red to black fruits.

-*Punica granatum* (**Pomegranate**): edible fruits are orange biscuit colour with hard skin, the fruit membranes divide and contain fleshy seeds.

-*Mangifera indica* (**Mango**): the fruit is ready to be picked when the colour of the skin turns from green to yellow, orange or red.

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When choosing a location it's important to think about:

- the amount of sunlight
- how exposed the area is
- soil type
- size and shape of the tree when it is fully grown

To plant your fruit tree, start by digging a suitable hole depth and incorporating added organic matter such as compost. After planting the tree to the same depth as its original container, form a mound around it to improve drainage and encourage establishment. Water it well.

While your fruit tree is young it will require regular watering, depending on its growth. Start by watering it every other day before gradually increasing the time between irrigation to once or twice a week for the first year. Be sure to keep the trees watered during dry spells throughout the growing season. Once the trees are established they will no longer require much watering.

And remember that you most likely won't get store-bought quality fruit without paying attention to fertilizing, watering your plants, and protecting them from pests and diseases. But in the end, you'll have delicious, homegrown fruit.

Life in the soil - text read to AGM attendees, by Peter Lee (peterarlee@hotmail.com)

Thank you for attending the Botanical Societies AGM today.

During the COVID 19 lockdown earlier this year I was able to finally start my Life in the Soil course which I had signed up for in late 2018 but never found the time to do.

The course consisted of 16 sections with an exam at the end of each one which went through the various stages of organic soil formation. There was a final exam in section 17 and in order to get a distinction, I had to average at least 90% overall - which I am glad to say that I did. My final mark was 92%.

The person who facilitated the course is Dr Elaine Ingham and she was a senior professor in education and had worked with people all over the world to improve their soil organically and to therefore have less weeds and higher plant or vegetable production.

It was a very interesting course and some of the things she discussed I have already implemented in my own garden.

Dr Ingham guided me through the course and taught me about what organisms do in the soil, who these organisms are and helped me understand the conditions that are best suited for the beneficial organisms and to identify the detrimental organisms in the soil.

I learned how to create the ideal conditions to produce organisms that will help a plant to grow without having to use pesticides or inorganic fertilizers and not have to deal with weeds, insects, pest and diseases. This is called nutrient cycling. Where there is normal nutrient cycling occurring in soil, this is how good, organic soil structure is built, which will allow the root systems to go as deep as they possibly can. This method will keep moisture in the soil so you won't need to irrigate or add additional moisture into your soil. Natural rainfall should allow for all of these organisms to flourish and benefit your plants. Additionally, tilling the soil will not be required.

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Cont.

If soil is compacted this creates a lack of oxygen and there will be a lot of anaerobic organisms and pathogenic bacteria in the soil as they do not respire carbon dioxide (CO₂). They may respire something completely different; for example, methane. If your soil is lacking in carbon dioxide it generally means that it is going anaerobic and therefore you need to add organic matter. Anaerobic conditions in soil are known to outcompete or kill off aerobic bacteria in the soil.

If we have the right beneficial organisms in the soil, then we are able to build the structure, and we can make that soil into a perfect texture.

Organisms present in our soil will pull the nutrients out of silt, sand and clay which is present in the earth and store them in their bodies until needed. Crystals form in our rocks, pebbles and bedrock, which are underlying basement material from which sand, silt and clay is made. Protozoa, nematodes, micro-arthropods and earth worms are all larger predator organisms that perform this function. This will make your soil aerobic which is the ideal conditions for growing healthy plants.

If you can get these proper sets of organisms in there, you won't need pesticides or need to be buying expensive, destructive chemicals.

Any pesticides in your soil, will not only kill very important things needed in there, but will leach out and move into your ground water and potentially, into your drinking water.

Finally, I would like to leave you with a couple of Dr Ingham's quotes which will give you something to consider.

"She stated that every civilization before us, on this planet, was destroyed because they destroyed the soil." She also stated that: "In the long term, we are going to destroy our civilization if we don't pay attention to what Mother Nature is trying to tell us".

This is a very brief summary of some of the information and knowledge that I learnt and is really only scratching the surface of how intensive the course actually was. I hope you have received some interesting and valuable information. If anyone would like to know more details about the course, feel free to contact me.



Tree Tale Activities

Congratulations to the following new Junior members, Charlie for his very attractive Leaf Art picture and Juliet for correctly measuring the circumference of the rubber tree.

For more information on the Tree Tale Tour and Activities see our website

www.bermudabotanicalsociety.org



View from Fort Scaur

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The trouble with being single when you are a Yellowwood

- text and photos by Alison Copeland

In 2015 I did a quick count of Yellowwood trees (*Zanthoxylum flavum*) in parks and nature reserves around the island for a [protected species recovery plan](#) that was being prepared for this critically endangered native tree. During this survey, we identified several lonely Yellowwoods. In most cases, these had been planted as single specimen trees to commemorate an occasion, such as the one in the graveyard at St. Peter's Church. BBS members who took part in the walk around Par-la-Ville Park in November would have seen the single specimen Yellowwood in the flowerbed there. We also recorded one or two trees at Fort Scaur Park, Penhurst Park, the Arboretum, and the Botanical Gardens.

On their own, these Yellowwoods make lovely specimen trees; however from a conservation stand point they are of little value. Yellowwood trees produce male and female flowers on separate trees; and it is the females that produce the seeds for the next generation. Therefore these lonely, scattered Yellowwoods will never be pollinated or reproduce successfully. When planting dioecious trees like Yellowwoods it is important to plant them in groups to improve the odds of having both sexes in close proximity. If anyone has a single Yellowwood tree in their garden, I would strongly encourage you to get it some friends.



Bee on a female yellowwood flower.

As Bermuda's most endangered native tree, the Yellowwood desperately needs all the help it can get to increase its population. On Sunday December 13th, members of the Society are invited to Fort Scaur to have a walk around the park and view the two Yellowwoods there. To commemorate the end of 2020 and the UN Decade of Biodiversity, we will plant an additional Yellowwood alongside the two existing trees. I am grateful to Mr. Tear and Mr. Winters at the Department of Parks for their assistance with this initiative.

Membership Renewals

If you have not already done so, please consider renewing your membership. Form and banking details can be found on the website, www.bermudabotanicalsociety.org

Citizen Science

First reported loquat flowering, *Eriobotrya japonica*, October 25th, West Pembroke. So we have now completed the first round of record keeping. Next ones to look out for are Bermudiana, *Sisyrinchium bermudiana*, and Surinam Cherry, *Eugenia uniflora*. Something for the children to look out for?

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A Beachy Christmas Craft: A Christmas Tree ornament.

Jocelyn Morrison

Take a walk on the beach. All along the tide line you will often see these little twigs of all different lengths and shapes washed in by the tide. This little Christmas tree is only one of many things you could make.

What you need:

- One piece of White card 5"x1"
- Approximately 10 thin twigs of different lengths.
- Red Marker
- One piece of ribbon (you could use a piece of thin ribbon, yarn or string)
- White Glue
- Hole punch
- Scissors

How to make your Christmas tree:

1. Take the white card and punch or make a hole close to the top but not too close to the edge
2. Measure 1" from the bottom and draw a line across to make a square.
3. Color this square with your marker.
4. Snip off a diagonal line on each side of the colored square to make the shape of the pot. This is the bottom of your ornament.
5. Before you glue lay the shortest twig at the top then the next in length and continue until you have made the shape of a Christmas tree.
6. When you are happy with your tree shape take the twigs off again and spread the white glue from just below the hole to the 'pot'. To make sure you have a tree shape you can wiggle the twigs into place at this point before the glue dries.
7. Put your tree in a safe dry place to dry while you cut a piece of ribbon 5" long.
8. Fold the ribbon in half to make a loop and tie a firm, small knot in the two ends.
9. When the glue has dried, thread the looped ribbon through the hole from the front until the knot tightens against the hole.

Your little tree is ready to hang.





Above: Tour of the Tree Tales Trail, Botanical Gardens.



Left and below: Tour of Queen Elizabeth Park, Hamilton, led by George and Marjke Peterich.



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THE PROBLEM WITH CATTAIL IN BERMUDA

David B. Wingate - September 2020

The common cattail, *Typha angustifolia*, is a tall strap-like leaved plant which grows submergent in *freshwater* marshes and ponds. It provides great cover and some food value for a variety of waterfowl ranging from gallinules and rails to bitterns. Although most Bermudians are probably unaware of this, it also has food value for humans in many parts of the world. Dried leaves can also be woven for chair covers and mats, or used for waterproof stuffing for bedding, life jackets etc.

The botanist N. L. Britton (Flora of Bermuda 1918) reported it as “common in marshes, often forming large patches,” and he considered it native. It took me nearly a lifetime, however, to realize that it was not universally distributed and was absent from one or two freshwater marshes, especially in the western sector of Bermuda. A case in point was Warwick pond where I first noticed it as a small colony at the northern end of the pond in 1950 and gradually, over the decades watched it spread around the entire perimeter of the pond in an ever- widening belt which ultimately blocked the view of the pond from all sides about 2010.



Lack of universal distribution in suitable habitat - especially if the species concerned is still spreading into that habitat - is a typical indication that it is *recently* introduced. Is it possible that Britton was wrong, or is some other factor involved? It is highly unlikely that Britton was wrong, because cattail seed, dispersed from the brown catkins, is minute and borne on downy parachutes which can disperse in the wind for hundreds of miles, enabling it to reach Bermuda readily downwind from the continent. So, what else might hinder its colonization and slow its spread on Bermuda? I think I found one explanatory cause when I oversaw the excavation of an extension to Somerset Long Bay East pond (known as Pitman’s pond) for Buy Back Bermuda in 2006, following its purchase from Joffre Pitman in 2004. Up until 2004 he had allowed a farmer to graze cows on the property, and they kept the pond edge bare and muddy – good for sandpipers.

At that time, the nearest colony of cattail was in Warwick West marsh at Tivoli South. (The former Southampton cattail marsh was already filled completely as a garbage dumpsite). Nevertheless, within the next half year the first seedlings of cattail began to appear and once they were well established with sturdy rhizomes they could hold their own amidst the other recovering marsh edge vegetation. It seems obvious now that the pre-existing dominance of other marsh plants had an inhibiting effect, preventing its establishment. Even where cows have continued to graze on pond edges, leaving the shoreline muddy, they prevent cattail from establishing so long as they continue grazing. It was only in that short period of time after the removal of the cows in 2004 and before other pond edge plants could establish, that the cattail was able to colonize the bare, water saturated ground from wind dispersed seed. Fortunately, by this time I was aware of the problems caused by excessive growth of cattail – see below - and noticed what was happening in time to nip it in the bud. But it required a major contract with an excavating firm in June 2010 to remove what had already established in five or six years.

Cattail probably failed to colonize our freshwater marshes in pre-colonial time, then, because there were no large grazing animals – indeed there were no mammals at all - and all the *freshwater* marshes were filled with peat to above water table level and very densely

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vegetated with peat marsh “hammock” dominated by cedar, palmetto, wax-myrtle, doc-bush and saw grass, (much as the relatively undisturbed Paget marsh remains today).

It was only after human settlement that periodic grazing of marsh edges by cattle made cattail colonization possible by exposing the muddy substrate. Other human-induced activities which removed pre-existing vegetative cover, enabling cattail to colonise were:

1. The marsh ditching program initiated by the Health Dept. to maintain open water for the introduced mosquito larvae-eating top minnow, *Gambusia Holbrookii*. – now abandoned.
2. Filling of the marshes with garbage and rubble as a convenient means of garbage disposal. Both were initiated in the late 1930s and 1940s.

Of course, when marsh filling was taken to the limit, the marsh was eliminated and cattail died out, but in a few cases, in marshes of sufficient peat depth (40’ – 80’) where the filling was prematurely terminated, an interesting phenomenon occurred: The filling with rubble caused the peat to compress. Rubble fill from the excavation of Black Watch pass and the south side of the hills on the Govt. House property caused the peat in Pembroke marsh east to compress so much that the substrate surface sank up to 8’ below the water surface, creating an open freshwater pond instead of the horse racing track that it was supposed to become. That pond has survived ever since! Cattail rhizomes are only capable of encroaching over fresh water to a depth of 6’, so it is only at Pembroke marsh, where the water depth got to be greater than 6’, that any open freshwater habitat has been retained naturally in Bermuda’s freshwater marshes. Cattail control in the much shallower freshwater ditches made the mosquito control ditch maintenance program so labour intensive to maintain, that it was eventually abandoned, eliminating a lot of human-maintained open water habitat in the freshwater peat marshes.

Other significant factors apart from periodic cattle grazing on marsh edges that enables cattail to colonize and spread onto mudflats and beyond into open water are:

1. Cessation of cattle grazing in many of the marshes;
2. Nutrient enrichment of our soils from our cesspit method of sewage disposal, which relies on filtration into the porous limestone. (Cattail is especially effective at absorbing nutrients and pollutants, so benefits disproportionately and grows more aggressively);
3. Sea level rise with global warming. However, it is uncertain whether the rate of rise is greater than the rate of peat and sediment buildup in the freshwater marshes yet.

Cattail spread out on to mudflats has been particularly disadvantageous to that mudflat feeding family of birds known as sandpipers of which 16 species are regularly transient through Bermuda between July and October. I used to see all 16 species at once on the big mudflat at the north end of Warwick pond but cattail has completely covered that mudflat as of 2020 and shorebirds are virtually absent there today.

All the other open-water ponds and mudflats on Bermuda today are either saltwater and slightly tidal (as at Mangrove lake and Trotts pond); Subject to sea flooding like Spittal pond, partly brackish as at Seymour’s pond; or recently excavated by man like the very recently excavated Eve’s pond, Shelly bay. Mangroves replace cattail as the primary cause of open water loss in tidal saltwater ponds, creating mangrove swamps.

Spittal pond is unique as the only brackish pond to be maintained by spillover flooding from ocean in storms. It has a highly variable salinity. With continued sea level rise it is gradually being invaded by black mangrove, *Avicennia nitida*, and will eventually become a bay of the sea, at which point Red mangrove, *Rhizophora mangle*, will also colonize, and it will become a mangrove swamp just like Hungry bay.

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Before I realized any of the foregoing I was inspired to create a freshwater pond by means of an impermeable liner within the Nonsuch Island Living Museum project to increase the habitat diversity. That pond was only 5' deep in the center and one of the marsh plants that I introduced was the cattail. It took less than 15 years for it to close in over the center of the pond, eliminating the open water and blocking the view from the observation hide built on one side. By eliminating the open water area the pond was no longer attractive to wild ducks, herons, sandpipers and snipe, but rails and bitterns continue to visit it.

Due to cattail colonization, the diversity of waterfowl which can overwinter in *all* of Bermuda's *freshwater* marshes has been greatly reduced. As mentioned above no Order of waterbirds has been more greatly affected than the Charadriiformes, which includes all of the sandpipers, stilts and snipe that are regular fall transients through Bermuda. Their favourite habitat is pond edge mudflats and rain flooded short-grass peat marsh pasture fields, respectively.

Mudflats and short-grass flooded fields can only be sustained now by grazing cattle or horses, as for example at the SW corner of Devonshire marsh on Jubilee road, or by artificial mechanical means such as dredging and mowing, as presently demonstrated at the newly restored Eve's pond at Shelly Bay and the low-lying part of the adjacent west Green Bay condo property when it floods after rain.

In the interest of comprehensive coverage of this topic, there is one other type of freshwater pond and mudflat that is not confined to water table level. These are the ephemeral farm ponds that can form in depressions between hills, wherever cows are kept at high density within holding pens. The combination of rainfall with their constant trampling of the mud and manure mix creates an impermeable barrier to quick soak-away into the bedrock. These small but extremely nutrient rich ponds are especially attractive to sandpipers because the high density of cattle prevents cattail colonization and many new species for Bermuda were first recorded in them. They have existed temporary at Tudor farm and Wadson farm in Southampton; Tivoli farm in Warwick, the Amaral farm in St. George's, and they still occur periodically at Spittal pond and Outerlea dairies in Smith's.

WHAT CAN BE DONE ABOUT IT? HERE ARE SOME IDEAS FOR VOLUNTEERS TO HELP, LEARN AND HAVE FUN TOO.

The need for Cattail control is not confined to Bermuda. Various Conservation agencies in the U.S. offer suggestions for control or use. The most effective control for large scale implementation is herbicide spray. A couple, like Glyphosphate, are registered as safe for use in aquatic environments, but I would be wary of their use in Bermuda except on a limited trial basis, say at Warwick pond north end. Apart from herbicide, the only option is mechanical control such as regular cutting, uprooting by hand, or digging out of the rhizomes.



Cattails (foreground), Devonshire Marsh

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Roasted Butternut Squash, Kale & Quinoa Salad

Vegan, Gluten-Free, Wheat-free ~ Choose local organic ingredients for best results
4 – 6 servings, Prep & Cooking Time = 45 minutes

Ingredients:

3 cups butternut squash, cubed
1-2 tbsp olive oil
1 tbsp fresh rosemary, minced
1 tbsp fresh thyme, minced
Sea salt, to taste
2/3 cup pecans, roughly chopped and toasted
2 cups quinoa, cooked
2 cups baby curly kale, roughly chopped
¼ cup apple cider vinegar
¼ cup olive oil
2 tbsp pure maple syrup (or Bermuda honey)



Method:

1. Peel, core and cut squash into bite-size cubes.
2. Place squash cubes on grease-proof paper on baking sheet.
3. Drizzle with olive oil, hand toss, spread out and sprinkle with rosemary, thyme and salt.
4. Roast squash for 25-45 minutes at 425F. Allow to cool on sheet before adding to salad.
5. In a large bowl, toss together quinoa, kale and roasted squash cubes. Set aside.
6. In a small bowl, whisk together apple cider vinegar, olive oil, and maple syrup. Pour over squash mixture and toss to coat.
7. Add toasted pecans just before serving

Makes a colourful, hearty, and delicious salad anytime but especially good for Thanksgiving and Christmas. Stores well if pecans kept separate, however, this showstopper will likely disappear quickly!

Variations: Can use fresh spinach or arugula instead of kale. Avocado oil is a good substitute for olive oil. A dash of hemp, flax, or pumpkin seeds can be sprinkled on top to boost nutritional value. A few dried cranberries will add to seasonal flavour and colour for holiday meals.

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

Calendar of Events:

Sunday December 13th, 2.30 pm Fort Scaur guided walk around the park, during which time a yellow wood tree, *Zanthoxylum flavum*, will be planted. Numbers are limited, reserve your space by emailing bdabotanicalsociety@gmail.com, subject Fort Scaur. Members \$5, non-members \$10.

Saturday, January 16th, 1.00 pm

Guided walk in the town of St. George's, led by Lisa Greene. Numbers are limited. Reserve a spot by emailing elgreenebda@icloud.com by January 15th.

If you come on the walk, consider having a Sweet P tea at the Perfumery. Price per person for the tea is \$40 (includes 15% gratuity) and *must* be paid in advance to reserve a spot.

About the tea: "Sweet P offers afternoon tea in the elegant gardens of historic Stewart Hall in St. George's. Enjoy our fresh and seasonal treats that highlight local ingredients.

Sweet P's tea is a perfect option for a late lunch in a relaxed setting. Indulge in a selection of fine teas, finger sandwiches and petit fours. Our popular scones are served with local honey, jam and chantilly cream."



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