



Bermuda Botanical Society

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

bermudabotanical.org

bdabotanicalsociety@gmail.com

MAY NEWSLETTER 2021

FROM THE PRESIDENT:

April Showers bring May Flowers. However, the intermittent stormy, fierce squalls followed by periods of spring like weather, whipped off the newly growing buds and flowers each time leaving me to wonder if I'll miss out on peaches and bananas again this year!

Citizen Scientists – looking for first flowering of All Spice, *Pimenta dioica* and later in the year Bay Grape, *Coccoloba uvifera*. Involve the whole family, have them all looking for these, taking photographs, and send results to bdabotanicalsociety@gmail.com Subject: Citizen Scientists.

Bermudiana, *Sisyrinchium bermudiana* was spotted in flower on February 5th at Carter House, St Davids.

QEII Platinum Jubilee 2022 – visits to Nonsuch are not permitted at this time, hopefully olivewood seedlings can be collected soon. Thanks to all those who volunteered to be 'foster parents'.

Endemic/Native Area at the BBG: The plants are settling in nicely. Weeding and additional planting was postponed, first inclement weather, and then Covid restrictions. Work will resume as soon as possible. The Bermudiana are thriving and flowering as is the snowberry.

Anyone interested in helping with this project should contact the Society at bdabotanicalsociety@gmail.com Subject: Endemic/native garden

The Value of Herbaria

As a coffee drinker, a recent programme from Kew gave me a whole new appreciation of herbaria, something I rarely gave much thought to. *Coffea arabica*, the preferred bean, is seriously threatened by climate change. Dr Aaron Davis, coffee researcher at Kew Botanical Gardens, had found 'lost' coffee beans, *Coffea stenophylla*, approximately 100 yrs old, along with their wild location, and taste in the Herbarium. In December 2018 two of the paper's authors (Dr Davis and Professor Haggard) using this historic information travelled to Sierra Leone to work with development specialist Daniel Sarmu, in an effort to locate the species in the wild. The story of their search (rather like a needle in a haystack!!) can be found here: <https://perfectdailygrind.com/2020/12/what-is-coffee-stenophylla/>

According to Britton, *Psychotria ligustrifolia* (wild coffee) and *Coffea arabica* could both be found in Bermuda. Gov. Hamilton mentions arabica in 1790. (Bermuda Her Plants & Gardens Jill Collett). Wild coffee can still be found though is quite rare. Does anyone have Arabica coffee growing?

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



Arabica coffee, *Coffea arabica*



Wild Coffee, *Psychotria ligustrifolia*

A. Copeland

Activities:

Blessed with good weather Alison Copeland led a group around an enjoyable and informative tour of the Fort Scaur area. Much to be seen and enjoyed.

Unfortunately Covid restrictions, have caused the cancellation or postponement of future tours. Hopefully the May visit to Somerset Long Bay will go ahead, date to be announced.

Jennifer Flood

Notes from the Fort Scaur Walk, led by Alison Copeland:

Scaur Hill Fort National Park is 24.1 acres

The 1962 aerial photo showed how much of the land has filled in over the last 60 years - mostly with invasive plant species.

During our 2013-16 endemic plant surveys we found the following at Ft. Scaur: - 149 Darrell's Fleabane, 82 Olivewoods, 107 Palmettos and 345 Cedars. Overall Ft. Scaur had 5 endemic plant species and 683 individual endemic plants. This placed Fort Scaur 4th out of the 139 sites we surveyed. The rest of the top 5 were: 1) South Shore Park 2) Walsingham Trust 3) Cooper's Island and 5) Ferry Point Park.

Poecilozonites bermudensis

166 from the Hamilton alley were sent to ZSL in 2014

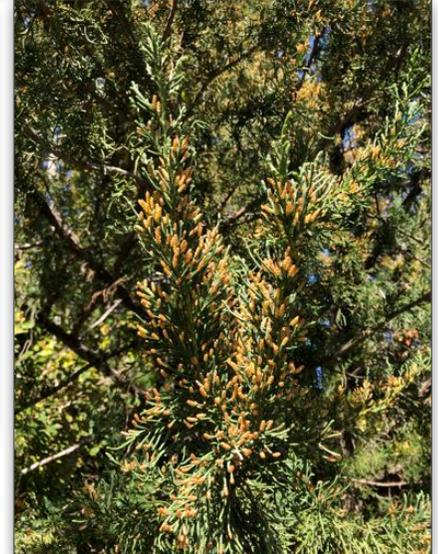
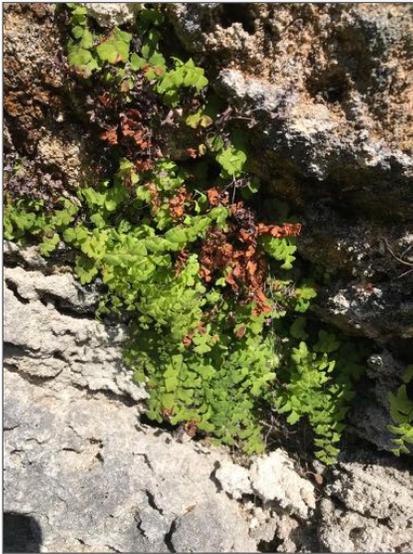
in 2016, 60 F1 snails sent to Chester from ZSL for captive breeding

To date about 30,000 have been returned from the UK for reintroduction; 11,000 of these went onto Morgan's Island (Ely's Harbour).

Signs of spring we observed - olivewood flowers and new leaves, cedar cones, freesias, Darrell's fleabane flowers, Surinam cherry flowers, loquats, longtails, bluebirds, red leaves of cherry and white stopper, Jamaica dogwood flowers and mulberry flowers.

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Tour of Fort Scaur, Somerset:



Clockwise from top left: the tour group, mulberry in flower, Mexican poppy, Bermuda cedar with male cones, view of Ely's Harbour, and maidenhair fern.

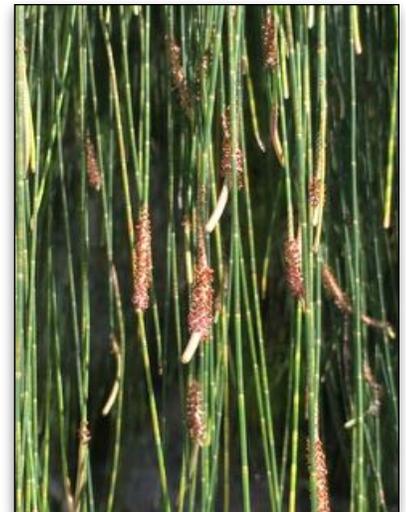
Trivium no. 33

By George!

What do Casuarina (*Casuarina equisetifolia*) and Bermuda Cedars (*Juniperus bermudiana*) have in common?

The plants are totally different, and one particular difference as is that the Cedar is dioecious, and the Casuarina is monoecious. The common thing is that the male inflorescence of both the Bermuda Cedar and the Casuarina can be found at the tip of the leaves.

See the photo of the cedar with male inflorescence above this trivium.



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Trivium no. 34

By George!

Here is something that gives the term “trivial pursuit” a different meaning. One day, sometime in 1941, my nanny was walking with me along a road in the country. She stopped somewhere and picked up a four-leaved clover. That was special and I also looked for one, but I could not find one myself - I was much impressed.



Well, ever since that moment I have looked for 4-leaved clovers - all my life, that is. Actually, I found most, when I was not even looking, just stopping sometimes where the clovers were. I have indeed found them in the Netherlands, where I started, and later also in Germany, Switzerland, France, Italy, Spain, and Portugal. I have not been in Ireland, where I might have found many, and I also did not look in England. Here in Bermuda, I never saw one, not since 1982. But on the 31st of January 2021, I was walking with my dog in Astwood Park, and here it was! My telephone was on hand to prove it - for posterity! (Did you know, that the Germans call a mobile phone a “Handy”?)

If you look closely, you’ll see that we had just gone through a time with very heavy winds.

White Stopper, *Eugenia axillaris* - text & photo Lisa Greene

On the Fort Scaur tour, Alison showed the group white stopper, in particular how its leaves are attacked by an insect that lives inside the leaf causing visible “blisters”. There was also discussion among the group of the common name which inspired me to revisit an article I’d written in 2000. It is excerpted below.

There are more than 1,000 different types of *Eugenia*. They are named for a French prince, Eugene of Savoy, a patron of botany and gardening in the late 1600s and early 1700s. Another member of this large group of plants is white stopper, *Eugenia axillaris*, a native of Bermuda, southern Florida and the West Indies.

White stopper can grow to twenty feet but is usually smaller and looks more like a small tree than a shrub. The leaves are similar to Surinam cherry but are more leathery, probably an adaptation that helped it withstand the harsh wind and salt spray of the island environment. The leaves also have a distinctive maroon stem. Crush a leaf and you’ll recognize the smell which is very similar to the cherry. In southern Florida, white stopper has a second name of skunk tree.



I could find no written reference to its use as a remedy for diarrhoea. It was used by Seminole native Americans for making bows for hunting and, according to Collett, is used in the Bahamas for ‘building up men’s energy and body’ and as a sponge bath after childbirth.

If you’d like to see an example of white stopper, there are some in the Native and endemic collection in the Botanical Gardens. You will also see a few growing, if you look carefully, in Walsingham nature reserve. They bear small, pale pink flowers; the flowers are followed by small, round, black fruit. White stopper was probably brought to Bermuda by a bird carrying the seed in its digestive tract.

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A Lesson I Learned in Lockdown - Naturalized bear's foot -

text & photos Alison Copeland

I will admit, somewhat guiltily, that I began this article while Bermuda was observing the stay-at-home order due to the Covid-19 pandemic in April 2020. Here we are exactly one year later, (to the day, according to the date on this Word document!) and again, we are observing a stay-at-home period. Due to the much-reduced traffic on South Road, I have been taking a daily walk up McGall's Hill.

Under normal circumstances, I would be too busy dodging cars and trucks to pay much attention to the road-side vegetation, but such are the benefits of lockdown!



On the roadside bank, just down the hill from Pokiok, I've noticed a fairly large cluster of flowering Bear's Foot (*Smallanthus uvedalia*) plants. This plant is a 2 – 6-foot-tall member of the Asteraceae, which produces bright yellow flowers about $\frac{3}{4}$ of an inch across. The furry leaves are up to 1 foot long, and 1 foot wide, and - if you are a botanist with a wild imagination – resemble the paw of a bear.

I had always thought Bear's Foot was native to Bermuda, and was rather pleased with my find. When I began to write this up however, I discovered that this

might not be the case. Nathaniel Britton wrote in his *Flora of Bermuda* (where it appears under the older name *Polymnia uvedalia*), that Bear's Foot can be found on "rocky and sandy hillsides, especially between Castle Harbour and Harrington Sound; Abbot's Cliff and locally in Paget. Eastern United States. Apparently native, though regarded by Lefroy as naturalised. Flowers from spring to autumn." ¹

Having searched through several other sources, it appears Lefroy was right, at some point this plant was brought to Bermuda where it naturalised, although not aggressively. Kew's Plants of the World Online gives the native range of Bear's Foot as central and eastern North America, from New York to Nebraska and southwest Mexico ². Several online resources mention how attractive this plant is for pollinators when it is flowering ³. Apparently, it has also become rare in several places across its native range; for example, in the state of Michigan it is ranked as 'critically imperiled' and is legally protected at state level ⁴. So perhaps our naturalised population has some conservation value, both for the species and our local wildlife.

In Bermuda, other places to look for Bear's Foot are the Vesey Street edge of Devonshire Marsh, and in Somerset at the Gladys Morrell nature reserve and Heydon Trust property. Jeremy Madeiros tells me it grows readily from seed if anyone wants to give it a try.



1. Britton, N. L. 1918. *Flora of Bermuda*. Charles Scribner's Sons, New York, USA. Page 398.

2. <http://www.plantsoftheworldonline.org/taxon/urn:lsid:ipni.org:names:237512-2>

3. https://www.fs.fed.us/wildflowers/plant-of-the-week/smallanthus_uvedalius.shtml

Notes on Bananas in Bermuda - drawing and text by Christine Watlington

Musa acuminata, of which hybrids have been formed.

Plantain (*M. x paradisiaca* - a cross between *M. acuminata* and *M. balbisiana*) was the main cooking banana in the tropics

Musa acuminata cv. Dwarf Cavendish, the dwarf edible mostly seen in Bermuda having been proved to be most disease resistant.

Bermuda has its ongoing struggle with bug and pest control not only with local plants but also imported plants (that sometimes bring in pest and disease..)

The banana was Introduced into Bermuda in 1616 by Governor Tucker.

First banana plants recorded in prehistoric times were found growing wild from India to New Guinea. The banana is truly an amazing plant to sustain all the winds in Bermuda taking 18 months from two years to form from the mother plant...

Now grown commercially in many parts of the world ..it is considered to be a tree but it is actually classified as a giant herb. It grows from 10 to 30 feet high.

The first banana displayed in London UK in 1633, it caused great excitement and fascination. The specimen had been sent from Bermuda. Bermuda has been fortunate to have amassed great plant lovers not just locally but from far flung places that propagate and protect the diverse flora.

The banana is a major source of carbohydrate. It can be eaten as a fruit, also can be fried baked and the green banana can be used as a vegetable adding good flavour when roasted.

It is much revered in Bermuda - Banana Bread being one of the most popular local treats - along with scones and puddings.

Young leaves can be used as a case for cooking food. For example meat and fish can be baked in banana leaves. Medically young banana leaves can be used to wrap around a wound or burn using first the juice from the stem or root squeezed or grated and placed on a damp cloth on the wound.

At one time the banana fiber was used for textiles and long ago also dried leaves used to stuff mattresses,. Hat, doll making and other crafts also became a charmed way to show the love and affection for this amazing plant.

Plant out suckers (which arise from the rhizome below the ground.) Sometimes you can find pieces of the rhizome itself which can contain buds. After fruiting, the stem which has borne the inflorescence, dies and is usually cut down. Meanwhile the rhizome sends up another plant bud. Each plant may survive five to twenty years then one must clear and start again.



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Miscellany - text and photos Lisa Greene



What's that?

This dried fruit (2 halves) is the fruit of yellow allamanda, *Allamanda cathartica*, after it has dried, split and the seed dispersed. Hortus III describes the fruit as a “globose, spiny capsule, dehiscent by 2 valves, seeds many, dry, flattened, winged.” Other members of this family, (Apocynaceae) that have similar fruit are oleander and frangipani – except their fruit are not spiny. I have seen fruit on oleander regularly and on frangipani at least once. This is the *first* time I have seen fruit on allamanda and would be interested to know if anyone else has. If so, please send me an email at elgreenebda@icloud.com.

This fruit was seen on a plant in a garden in St. Georges and later found on the ground in the two halves pictured. The seeds were not seen. Presumably they were carried away on the wind.

Recently I was on a birding walk with the Audubon Society. One of the challenges when birding with others is finding the bird that they are seeing. If everyone knows their plants, then the job gets a little easier – “look at the top right of the Brazil pepper”. Well, a number of Bermuda birders who I’m fortunate enough to tag along with occasionally, are not very good with their plant identification. In fact, I might go so far as to say that their plants identification skills are perhaps worse than my birding skills, which isn’t saying much!

So, on this recent foray, I pointed out fiddlewood and some of its identifying characteristics, olivewood, and Brazil pepper. Later on the walk, I overheard a discussion of whether it is Brazil pepper or Mexican pepper, and piped in with my frequent comment that common names are often confusing and misleading and so it’s best to use scientific names, in this case *Schinus terebinthifolius*. And what followed that was a musing of what *terebinthifolius* means. Breaking it down, you might think, as I did, *tere* – land, *binth* – who the heck knows and *folius* – leaves. But the Latin root for land is *terra* with two ‘r’s. Hmmm..... Fortunately, I have several books on plant names and word roots and discovered that “*terebinth* , =us (G). refers to the turpentine tree”, therefore, the leaves of *Schinus* must smell like turpentine. Crush some in your fingers (unless you have sensitive skin) and have a smell. Definitely resinous!

- *Schinus* – Pepper tree Gr. *Schinus*, the mastic tree, which this genus resembles in that the trees exude a mastic-like juice. Anacardiaceae. (Stearns Dictionary of Plant Names for Gardeners.)



Paul Farrington

This little fella is *Gonaxis* - an introduced carnivorous snail. It was spotted in a vegetable patch in a Hamilton Parish, feeding on a milk snail, in mid-April. This species is not very common but might be getting more common. I didn’t get one at the Natural History Museum until I’d been there for at least a number of years, then one would be brought in every couple of years or so, and before I retired, they were coming in maybe one a year.

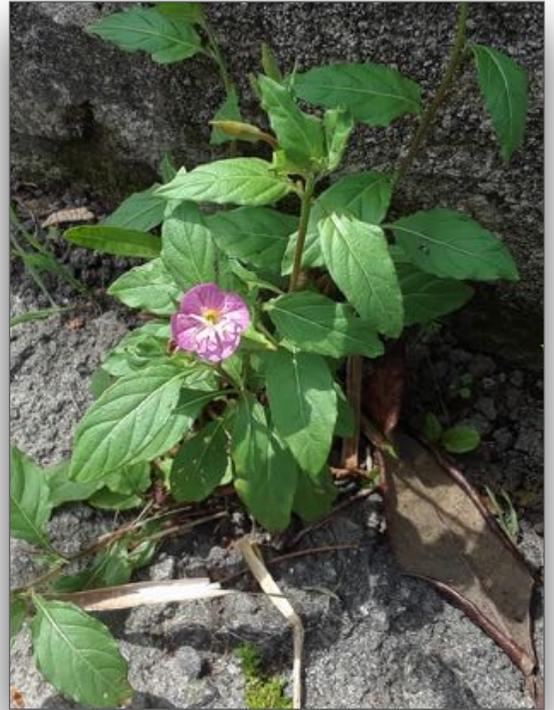
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Miscellany cont.

Have you seen this plant in Bermuda?

I was asked by Jamie Bacon to identify this plant that she'd seen on a walk in Pembroke in late April. I'd never seen it before but the flower structure looked familiar - it looks like our native seaside evening primrose (*Oenothera humifusa*) that you see in coastal habitats and that are flowering now. After a quick internet search I found a few pink *Oenothera* that are wildflowers in North America and elsewhere, but I also found *Epilobium obscura* in Bermuda's Botanical Wonderland by Christine Watlington, published in 1996. This little plant, in the same family as *Oenothera*, was not mentioned in Britton's Flora of Bermuda (1918) nor in The Bermuda Jubilee Garden (1971). The next step in trying to determine the ID is to look in the herbaria at the Natural History Museum to see if there are any specimens of it recorded there.

If you know this plant, I would be *most interested* to hear from you. Please email me at elgreenebda@icloud.com and help to fill out the story of this plant in Bermuda.



Jamie Bacon

A note on the establishment of the Botanical Gardens - Alison Copeland

Addison Verrill was a professor of zoology at Yale University who published an extensive account of Bermuda's natural history in 1902. This book, available online as a PDF, contains some interesting notes on what are now historical events, but were the news of the day at the time of writing. I thought the Society members might find the quote below on the establishment of the Bermuda Botanical Gardens interesting.

The Public Garden. "In 1896 an Act was passed to establish a Public Garden, Mr.Nathaniel Vesey, M.C.P., was largely influential in promoting this very worthy enterprise. The land purchased was to be not less than ten acres, and not to cost over £1550. A sum not exceeding £550, was provided for buildings, etc. It was to be entirely under the management and control of the Board of Agriculture. Salary of superintendent was to be £300, and the running expenses not over£150, annually. The Annual Reports to the Board of Agriculture to be published. Ten acres of land were bought in 1898, in Paget Parish, near Hamilton, and a house was built. Mr. Geo. A. Bishop was appointed superintendent, in 1898. His first report was on the " Diseases affecting the Lily in Bermuda, their cause, treatment, and prevention." Of this, 500 copies were printed and distributed.In 1899, additional grants were made for glass houses. The work of improving and planting the grounds has progressed very favourably.It will, without doubt, eventually become a very attractive place, and also of great benefit to the people, on account of the experiments and investigations that will be conducted there in agriculture and horticulture. At present the appropriations for its expenses seem very inadequate."

Reference: A. E. Verrill. 1902. The Bermuda Islands: an account of their scenery, climate, productions, physiography, natural history and geology with sketches of their discovery and early history and the change in their flora and fauna due to man. Reprinted from the Transactions of the Connecticut Academy of Science, Vol. XI, with some changes. Page 474 (886).

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SYSYGY - text and photo George Peterich

Looking at the website of the Botanical Society I saw mention of the Rose Apple, and it stated that it had no similarity to apples. To this I may add: The depicted fruit is one of the genus *Syzygium*. Syzygy means something like “opposed to itself”. It refers to the position of the leaves on the branch. Here in Bermuda we can find *Syzygium jambos*, the Rose Apple, and *Syzygium semarangense*, the Wax Apple. They are not apples, but the important part of the name is rose, because they taste like rose water, or some Turkish delight, if you know that, made with rose water. Wax Apples are so called because of their waxy



Lovely spring leaves. The rapier-like bits, sticking out of the flower are the pistils. Fruits will be coming!

appearance. I have read that they can be found in Malaysia, the Philippines, and Indonesia. The epithet means “from Semarang”, which is a city in central Java. Probably the botanist who named the species, first saw it there.

I used to pick rose apples in the Botanical Gardens where a large tree can be found on the South lawn close to the South Road, and I love to eat them. They are very easy to grow from the seed, that you’ll find, somewhat rattling, inside the fruit when you shake it. The fruit is an about 1/4-inch-thick wall of edible rose. Some 10 years ago an unfortunate thing happened. Crows discovered that they could eat the fruit and started pecking at them and competing with me for them. Luckily I now have a tree in my garden where crows are not welcome.

The wax Apple, *S. semarangense*, can also be found in the Botanical Gardens. The fruit come in clusters and look very attractive. I have tasted them even before I knew about them and they do have the fresh taste of an Apple.

Watch the tree in the summertime for the flowers; they are lovely and of course come in clusters. Keep watching, and if you’re lucky they will be followed by the fruit.

Membership Dues:

Thanks to those who renewed their membership last year. However, many receiving the newsletters have *not*. Please support the BBS programmes such as the Endemic Garden, Tree Tales, 70 for 70, scholarships etc by joining. **Renewal forms are available on the BBS web site, along with payment details.**

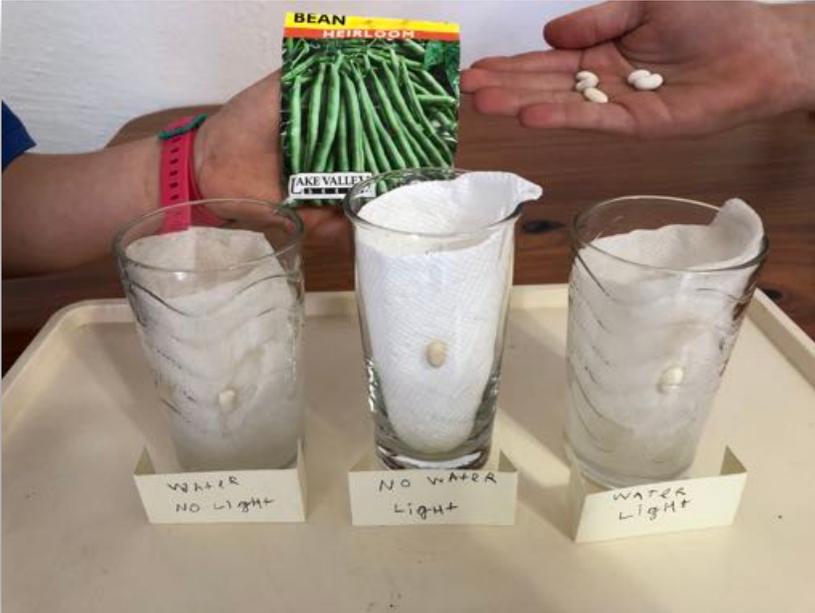
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Children's Corner

Can you guess what 5 things plants need to grow?

Try this experiment to find out 2 of them.

You will need bean seeds, paper towel, 3 glasses and water.



Glass 1 - dampen a piece of paper towel with water. Insert it into a glass and place a couple of bean seeds between the paper towel and side of the glass, as shown. Place glass in dark closet.

Glass 2 - insert dry paper towel into a glass, place a couple of bean seeds between the paper towel and glass. Place on a sunny windowsill.

Glass 3 - same as glass 1 only this time place the glass on a sunny windowsill.

Label your glasses.

Add water to glasses 1 and 3 every few days to keep them damp
What happens after ten days?

After trying this you'll know that plants need water and sunlight. Take a look at this You Tube video to find out what 5 things plants need

<https://www.youtube.com/watch?v=gIRR-VdIP1M>

After 10 days take photos of your results; send them along with your answer to BBS at bdabotanicalsociety@gmail.com

We look forward to hearing from you!

Contributed by Felicity Holmes