

Coffs Harbour Group NEWSLETTER No.147: June 2020



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Keep up-to-date with news, program of outings and meetings via our pages:
www.austplants.com.au/Coffs-Harbour

APS Meetings Recommence!!

At last we are able to recommence regular meetings, provided we observe the 4-square metre rule of physical distancing. The APS CH Committee will meet on June 30, followed by a membership gathering at the Botanic Garden on July 14. The latter is a day meeting, starting at 10am with our President, Gwyn Clarke discussing *Grevilleas*. It will be wonderful to see familiar faces again and share morning tea.

We probably need to hold the meeting in the Pavilion, just past the Display room. Gwyn has asked that because of the recent colder, wetter weather, she has lost some of her Grevilleas and the flowering of the rest is a little below par. She requests as many members as possible to bring Grevillea flower spikes from their own garden, preferably with species names. (Images below: *G. venusta* and the Pavillion)





Jan Whittle: Dorrigo and Ebor

On a cold but sunny day in May, I ventured up Waterfall Way to Dorrigo, hoping to find the Food Angel Café open (sadly, it was not). Neither was the Dorrigo Rainforest Center, but it was possible to access the Skywalk. The view over the rainforests to the coastline was lovely in the clear air. *Doryphora sassafras*, (Sassafras), heavy with flowers at this time of year grows on both sides of the wooden walkway. This large rainforest species of Gondwanic origin (ref: Alex Floyd) reaches 30m and its toothed, elliptical leaves have a sweet perfume when crushed.





(L) Doryphora sassafras; (R) Alan's Water

Still searching for a cuppa, I continued on towards Ebor, thinking Fuss Pots Café would be open. The journey through bucolic landscapes was very enjoyable. I went off the main road to take a closer look at Alan's Water, a trout stream that meanders through private property. Although disappointed to find the Café closed, it was great to see how much regrowth there has been in the Ebor Falls area. Sadly, the viewing platforms were destroyed in the fires destroyed and the path to the lower falls remains closed. If you decide to take a look yourself – take a thermos!



Sue McEntyre: Carnivorous Plants...coming to the Botanic Garden soon

Editor: The NCRBG has received a donation of carnivorous plants (from Stephen Clemesha's estate) and Sue McEntyre has been tasked with researching these specimens. She has generously agreed to provide us with some of her findings of these fascinating plants, many of which are native to Australia.

What is special about carnivorous plants is that they not only use photosynthesis to derive energy, but over 85.6 million years have evolved fascinating trapping mechanisms that serve to lure, capture and kill insects and other small creatures in order to obtain essential nutrients, in particular nitrogen, which enable them to grow in some of the poorest, nutrient-leached habitats worldwide.

Dionaea muscipula (Venus Flytrap) was the first carnivorous plant recorded by English botanists. In 1759, North Carolina governor Arthur Dobbs wrote to botanist Peter Collinson: We have a kind of Catch Fly Sensitive, which closes on anything it touches. It grows in Latitude 34 but not in 35.







Botanical drawing at right is by William Curtis (1746–1799)

This is possibly the most commonly known carnivorous plant. It is native to North and South Carolina; it requires high humidity and sunlight, and is found in moist acidic soil of forest understory. The Venus Flytrap has evolved a **snap trap mechanism or rapid movement trap** to capture its prey. Rapid movement in plants can result from growth or rapid changes in cell turgor*, which allows cells to expand or contract quickly altering their water content. Because of this rapid turgor, glue is unnecessary. The stalked glands that once made glue became teeth and trigger hairs in species with active snap trap structures.

The Venus Flytrap with its reddish lining in the leaves and secretion of fragrant nectar lures insects, primarily ants, flies, beetles and slugs. When prey land in the jaws of the flytrap it doesn't close immediately. Sensory hairs, called trichomes, on the inside of the petals essentially count the movements from the insect. There must be at least two movements in 20 seconds before the petals close. The leaf has a simple memory. This prevents it from trapping debris or other items that wouldn't make a good meal.

On the second movement, the plant closes its jaws in under a second by snapping from a convex shape to concave shape. The bristles on the edges of the leaves work like jail bars to prevent the insect from making an escape. On the third movement, it starts to digest the insect. Digestive juices are introduced to the mouth area and they break down the insect. After five to 12 days, the plant will reopen and the parts of the bug that couldn't be digested fall out. Leaves can be used three to four times before they become unresponsive.

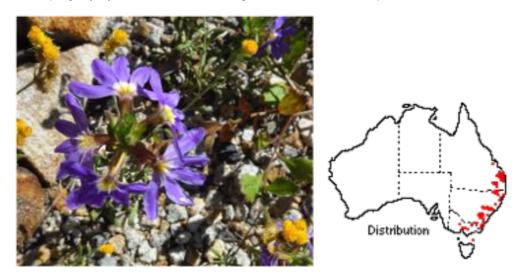
References: https://en.wikipedia.org/wiki/Venus flytrap

Gwyn Clarke: Surprise Plants

One of my favourite plants is *Scaevola aemula* sometimes called the Purple Fan Flower. I've tried many times to grow this plant in my garden with limited success. It will grow for a short time and then die. It didn't matter how I changed the growing conditions nothing seemed to satisfy it. So imagine my surprise when after the poor conditions of drought, fire and then flood, Geoff told me that *Scaevola aemula* had decided to grow in a most unlikely spot. It had chosen the edge of our granite drive close to the house and in full sun.

^{*} *Turgor* is what makes living plant tissue rigid. Loss of turgor, resulting from the loss of water from plant cells, causes flowers and leaves to wilt.

No one would ever have thought to plant it there. I find it hard to dig out weeds on the drive and prefer to poison them. I don't think you could dig a hole to plant it. We found it in March, but as it was a reasonable size and flowering it looked like it had been there for some weeks. It is still there now (mid-June) and still flowering. I'm keeping my eye on it to see how long it lives in its chosen spot.



What most surprised me was that the seed must have been in the garden for some time (like seven years). I did not realise the seed of *Scaevola* would be viable for so long. I had never planted it near the house, which is where it is now, so I guess it was blown or washed to the spot. Anyway, we are really glad it is there and are enjoying seeing it regularly.

Jan Whittle: Castanospermum australe (Blackbean)





Castanospermum australe grows on the eastern coast of Australia (NSW and Queensland), as well as Vanuatu and New Caledonia. This specimen in the NCRBG (above) has recently dropped its large seed pods which each contain up to 5 seeds. Australian Aboriginal people have used the seeds as an important food source: poisonous when raw, the seeds must first be roasted, leached in running water for several days, and then pounded into flour which can then be used to make damper.

Editor: Contributions to Newsletters can be sent to jan64garden@gmail.com