CALGAROO

May 2021

***Eucalyptus parramattensis* - Calgaroo**

Newsletter of the Parramatta and Hills District Group

Australian Plants Society NSW Ltd

22 May 2pm - Members' Meeting Gumnut Hall Cherrybrook Propagation Workshop

Our next meeting will feature an interactive, practical session and discussion on plant propagation from cuttings.

Our speaker is Lesley Waite, who has led our Parra/Hills propagation group at the Community Nursery in Baulkham Hills for the past 15 years or so, and has taught propagation techniques to several groups of local residents via the Hills Shire Community Environment Centre at Annangrove.

We will discuss and demonstrate ways to set up a propagation system at home, and then, using a variety of native plant material, show all the steps from the preparation of cuttings through to the successfully 'struck' plants, ready for planting into the ground.

Attendees are encouraged to bring their ideas, successful techniques, questions, problems and/or cuttings to help make this a truly interactive and informative session for all - novice and expert alike.

Program for the remainder of 2021

- 12 May — Propagation Hills Council Nursery*
- 15 May — APS NSW Gathering and AGM Kurnell
- 22 May — 2pm Members' Meeting Gumnut Hall - Propagation Workshop led by Lesley Waite
- 26 June — Bushwalk - location to be advised
- 24 July — 2pm Members' Meeting Gumnut Hall – Bushland Photography Lachlan Turner
- 28 August — Bushwalk - location to be advised
- 25 September — Bushwalk - location to be advised
- 23 October — Visit Mt Annan Botanic Garden (to be confirmed)
- 27 November — Members' Meeting

* The Hills Council has opened its nursery to volunteers, but there are restrictions on numbers and pre-booking is essential. Lesley will contact regular propagation members individually to advise them of the procedure.

Remembering Betty Rymer

An iconic member of our Group, and Life Member of APS NSW

Betty Rymer passed away on 3rd April 2021 at the age of almost 99. She was active in our group for 28 years, and influenced us greatly and inspired us constantly. On arriving in Australia she fell in love with our flora, and spent the rest of her life learning more about it and passing on her vast knowledge to others. To read about Betty's productive life go to the APS NSW website here.

Lane Cove Bushland Park walk

Saturday 24 April 2021

Jennifer Farrer

Eleven Parra Hills members gathered for this walk in an amazing pocket of bushland only 10 kilometres from the Sydney CBD. The park is very small (9 hectares) and is mostly covered by warm temperate wet sclerophyll forest. In some sections only 10% of sunlight reaches the understorey. The park is very steep and surrounded by urban areas. You are completely unaware of the houses in the surrounding streets once you descend into the gully. The gully flows into Gore Creek which flows into Sydney Harbour less than one kilometre from the park.

We decided to visit the park because we had heard Ray Kearney give a talk about the fungi in the park at one of our meetings in 2019. His observations in the park had led to the discovery of fungi from the Hygrophoraceae family particularly the Hygrocybe species.
We did find fungi on the walk but not the rare species. Quite a few specimens were looking a bit dessicated as there had not been any rain for quite a few days. Ron Gornall, one of our members who lives in Lane Cove and has been to the reserve with Ray Kearney pointed out the area where the fungi occurred near the creek and warned us that they are very small.

Omphalotus nidiformis (Ghost Fungus):

a colourful lichen on bark:

However, there were plenty of other interesting plants to see. Many ferns flourish in the moist shady environment. I was particularly fascinated by one of the ground ferns, *Hypolepis muelleri ,* which creeps over rocks with very slender rhizomes.

Most of our walks are in the local Hawkesbury sandstone country so it was a challenge for us to see so many rainforest plants. Fortunately we have members who were able to help with the identification of these species. Some of these were Cabbage Tree Palms (*Livistona australis),* Native Guava (*Eupomatia laurina*) with fruits, creepers such as *Smilax australis, Tylophora barbata, Geitonoplesium cymosum* and Native Passionfruit (*Passiflora herbertiana).*

Tony Maxwell again prepared plant lists for the walk and we were able to add some additional species to these lists.

Mt Wilson – before and after the fire

George Hardy

Mt Wilson, in the Blue Mountains, is about 800 metres above sea level and 80km in a straight line to the coast. It has a mean annual rainfall of 1,200 mm, an average temperature in summer of 22 max and 10 min, and in winter 9 max and 0 min. It occasionally snows. Underneath the rainforest canopy the temperature remains remarkably even, summer and winter. The soil is rich, derived from the basalt capping that is common to the nearby peaks of Mt Irvine, Mt Tomah and Mt Banks, and supports a lush temperate rainforest. The character of the soil across the mountain can easily be seen by the many large wombat entrance hollows.

I have visited this area, near the south-western side of Mt Wilson, almost monthly for six years, to have a better understanding of the growth habit of *Sarcochilus falcatus* in its natural habitat. At orchid shows, usually only plants that are in flower are shown. Photos, too, usually only feature flowers. Books provide a glimpse of what happens, but I have learned that a personal study is more revealing and rewarding. It will take me a little while longer to complete the investigation.

Two different forms of *Sarcochilus falcatus* growing at Mt Wilson

On 14th December 2019 a backburn was started during calm wind conditions in an effort to protect communities near the Bells Line of Road from the massive Gospers Mountain fire. However, soon after, the wind turned and blew in the opposite direction. The fire quickly burned through the eucalyptus forest and then much of the rainforest on the western slopes. The effect was that the eucalypts and understory were burnt, losing all their leaves then and during subsequent leaf drop.

The trees mostly started to recover quickly, producing epicormic growth along their trunks and branches. Shrubs either produced new shoots from the base of the old trunk or opened their seed capsules to release seeds into the ash. The rainforest consisted of Sassafras and Coachwood trees interspersed with saplings. The middle story had stands of large *Dicksonia antarctica* and *Cyathea australis,* and the undergrowth consisted of various vines and blankets of ferns *Blechnum cartilagineum*, *Blechnum nudum*, *Polystychum proliferum* and *Doodia aspera*. This forest is said to have been harvested over 100 years ago to provide rifle butts for use in WW1. This can be evidenced by many of the substantial new trees growing around a circular void of up to 2 metres diameter, where a large tree grew many years ago. There are usually one or two large trees of 1 metre diameter and 20 to 30 metres high and a few smaller trees growing in each section.

Shortly after the fire the smaller burned trees produced new shoots from the base. The larger trees started to grow additional foliage on unburned branches. The fire in this area must have acted like a flame-thrower, as bark was scorched for the first metre and only singed up to four metres high. This meant lower branches were incinerated as was epiphytic moss and orange blossom orchids within this region. Weaverbird nests also disappeared. Moss and orchids facing away from the fire escaped largely unscathed. Epiphytes above this range were also unaffected and flowered well during the 2020 spring. Many of the tree ferns were burned through at the base, toppling them. The *Cyathia australis*, some 6 metres tall, died. The Dicksonias however produced new shoots from their tops wherever they had fallen. A year later they are growing a new crown of fronds. As their base is no longer in contact with the ground, they survive by producing new roots from their trunk where it is in contact with the ground, provided it is moist.

Dicksonia antarctica regrowth (left), *Cyathea australis* and *Blechnum nudum* regrowth (right), February 2020

I have since noticed that a similar event must have occurred many years previously, as there are some *Dicksonia antarctica* that also had lost base contact and fell but continued to grow and are now two metres tall from the new growth. If the previous growth were added to this, they would be 5 to 6 metres tall!

There was a good flowering of *Dockrillia puginiforme, D. teretifolium* and *Sarcochilus falcatus* in 2020, although at a location of 20+ metres high I could not discern the effect of pollinators. This could be observed more easily before the fire. But even then, pollination was spasmodic towards the lighter edge of the forest but mostly absent inside the dark forest. Most of the tree ferns left standing had their fronds cooked and turned into a skirt but showed a new crown of fronds within 4 weeks. The previous fern carpet had been turned into a thick layer of soft ash and this together with the missing shrubs and vines and fallen tree ferns made the area look very desolate, especially when compared with the previous view.

However, the fern carpet had renewed itself within a very short time, giving the area a more pleasant appearance. And in August I experienced a pleasant fragrance of vanilla wafting through the forest. It was then that I also noticed a sprinkling of white petals on the forest floor. A tree with lower branches intact provided the answer - the Sassafras was flowering this year and it was doing so profusely. The weaverbirds are also still there. They have built this time in a Sassafras branch 15 metres up.

Doryphora sassafras regrowth March 2020, and flowering August2020

In 2012 I also observed the tremendous swarming of orange cicadas. They were only in the Sassafras, Coachwood area but in such large numbers that their sugary excretions encouraged widespread sooty mould on leaves below. As the photosynthesis for *Sarcochilus falcatus* was severely restricted, I suspected this would affect the flowering. However, this was not so, and I can only assume that the underside of the orchid leaf also facilitates photosynthesis. The insect again swarmed in 2019 and it will be interesting to see if the summer fires have affected their reproduction. They lay their eggs underneath the bark of twigs of the host tree from where the hatchlings slowly travel down the tree into the root system. We will have to wait another seven years.

A Banksia's demise

Ian Cox

Banksia serrata's gnarly bark, striking large flowers and large serrated leaves, epitomise the Australian bush. They add a certain character to a garden that no other plant can.

Malcolm Johnston told me that many plants sold in nurseries as *Banksia serrata* are actually *Banksia aemula*, which are very similar. The best way to tell the difference is to look at the shape of the stigma, which is cylindrical for *B. serrata* and ovoid for *B. aemula.* The leaves of *B. serrata* are usually wider and have deeper serrations.

There are several large *Banksia serrata* trees growing naturally at my place. This one died in early 2020 – not during the drought, but after lots of rain had fallen.

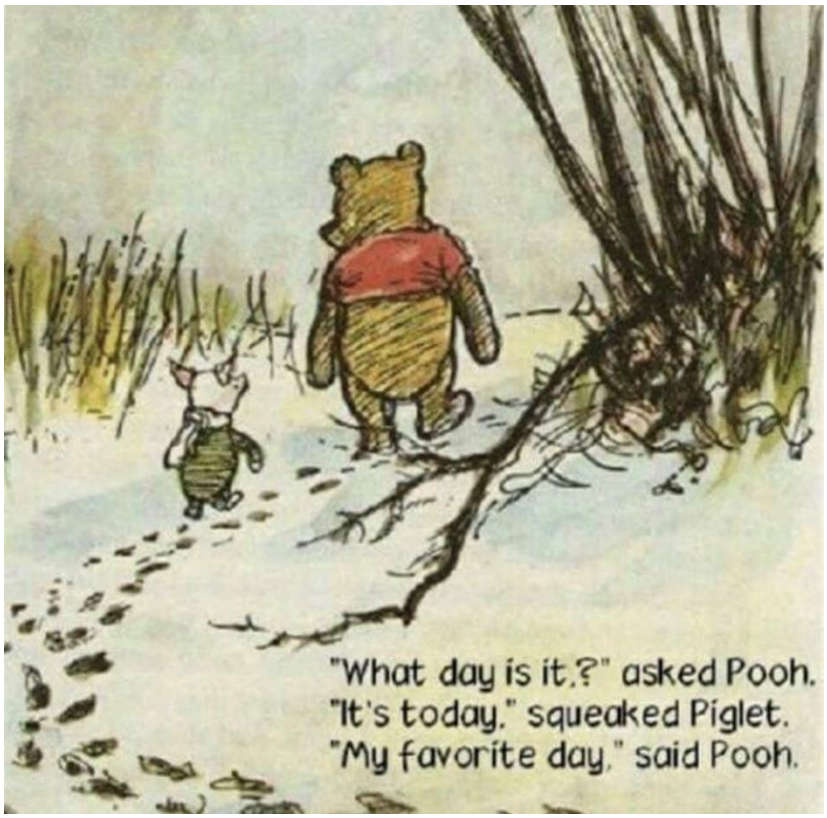
Its roots must have become so used to receiving very little moisture that when the rains came, they just couldn't cope.

It would have been several decades old.

One of the limbs of this dead Banksia was useful to create this "sculpture" effect in the garden.

Poa poiformis is in the foreground, and *Westringia fruiticosa* "Smoky" is in the background.

This could be us on our next bushwalk:



It's your *Calgaroo*

Please send your articles, comments, observations and photos for the next Calgaroo to me at itcox@bigpond.com

Australian Plants SOCIETY NSW

Parramatta and Hills District Group

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