AUSTRALIAN NATIVE PLANTS SOCIETY AUSTRALIA

HAKEA STUDY GROUP NEWSLETTER No. 69

FEBRUARY 2019 ISSNO727-7008

Leader. Paul Kennedy
210 Aireys Street,
Elliminyt, Vic. 3250
E-mail hakeaholic@gmail.com
Tel. 03- 52315569

Dear members.

What a terrible hot summer we are having over in the eastern states. Barry Teague at Swan Hill says the temperature has been in the high thirtys and low fortys for most of January. To cap it off the temperature reached 48.5 degrees C just before Australia Day. Others along the Murray Valley in Jan Hall and Glenda Datson have also been watering their Hakeas in the hope they will pull through the heat and very dry conditions that prevail at present. It will be interesting to see what the effect of scorching heat has on the Hakeas in Barry's, Jan and Glenda's gardens. When we were at Strathmerton the hottest day we experienced was 47 degrees C which we thought was just horrific. However most Hakeas were on a sandhill, which at a depth of 1.5m had permanent moisture all year round as well as being watered regularly over summer.

Here at Elliminyt the conditions have been much milder with an occasional hot day up to nearly 40 degrees C but the absence of rain is very evident as the sandy soil has no moisture in it. We had a dry September, good rains in October and November, and little else since. The yearly rainfall was 625mm, which is well down on the average of 750mm. I started watering of the Hakeas from wetter areas around Christmas and gradually extended that to cover most of the 160 species. To date I have lost a Hakea psilorrhyncha to wind damage and a Hakea anadenia to some unknown reason. However in late January a mature 3m high Hakea macraeana in full sunlight also died as I thought in this cooler and wetter climate it would survive without any help of additional moisture. Hakea macraeana comes from forest areas in southern NSW where with dappled shade and higher rainfall it grows very well in clay loams and rocky soils. Glenda Datson says her young plant at Albury has died in the heat. At Strathmerton we grew it in full sun in clay loam soil and watered it weekly over summer, however even as a mature plant 2.5m high it never looked really happy. I will look for a shady location for the next one.

Hakea crawl continued.

In the last newsletter we concluded with the trip down Sandalwood Road and the Hakeas to be found there. We now move on to the Sunday excursion down Cheyne Beach Road.
Hakea tuberculata. About a klm down the road from the intersection with the main South Coast Highway on a small rise there is a population of Hakea tuberculata in an old gravel pit. The prickly plants grow to about 1.5m high but are fairly spindly in structure. The leaves are rigid, narrow elliptic (1-2 cm x 2-6mm) with 3-8 sharp points towards apex. It gets its name from the shape of the protrusions on the seed capsule. The small flowers are white and can be profuse. The seed capsule is obliquely ovate (1.7cm long x 0.9cm wide). In the garden it tends to be a bushy plant tolerant of a sunny location in sandy loam to clay loam soils.
Hakea cucullata. Nearby and elsewhere there were plants of this Hakea. Its green sessile orbicular concave cup-shaped leaves (7 cm x 4-8cm) with pinkish red flowers in the leaf axis. It tends to grow leggy and tall in the wild but with pruning it can be made into quite a nice plant. It is one of the more desirable plants members like to grow and likes well drained sandy or gravelly soils. It likes a

cooler climate and flowers in September. The seed capsules vary in size (2-3cm long x 1.6 cm wide) with a slight tapering point and are hidden in the leaf axis.
Hakea elliptica. As the name suggest the shiny green leaves are elliptical (4-9cm x 1.5-5.5cm) with 3-5 longitudinal veins above and below as well as secondary veins. The new growth is a rusty brown and is quite attractive. The plant can grow to 3m in height and is generally rounded in shape. The seed capsule is obliquely elliptic and has an obscured beak. Hakea elliptica grows around the coastal area from Nornalup to just east of Albany. There is an avenue of them leading up to the war memorial on Mount Melville in Albany growing in decomposed granite soils, however they will grow in heavier soils just as well. It is a late flowering Hakea with December- January its peak flowering time. The seed capsules are up to 3.7cm long x 1.8-2.2cm wide.
Hakea lasiantha. This is a lovely bushy Hakea. We drove down a rough side track hoping to see large bushes 4mx 4m but unfortunately they had burnt the area and all that was left was blackened trunks. Fortunately nearer the beach there were smaller bushes which we could admire. Its soft green leaves are narrow elliptic in shape to 7.3 cm long. The flowers are white and the seed capsules obovate to 2.3cm long with a smooth surface. The seed is not retained when ripe and is also subject to insect attack. In the garden it seems to grow well on sandy soils and even seems hardy to days of extreme heat up to 40 degrees C. with its soft leaves not showing scorch marks.
Hakea nitida. This species is one of the toughest. Around the hills fronting the sea this was a prostrate plant growing in gravelly soils. Its stiff flat, subpetiolate narrow elliptic green leaves (to 9cm long x 1-3cm wide) can be entire or have up to 6 mucronate teeth on each side of the leaf. It has large white flowers and large seed capsules (2.5-3.5cm x 1.5-2.5cm wide) with black pusticulate warts. Inland it forms more of an upright bush. Kevin Collins says he has tried the seed from prostrate plants and they appear to come true to shape. Either form is a great plant for our gardens.
Hakea ceratophylla. I had read about a form called “elongata” but had not come across it until lately. Between Albany and Denmark on a short side track access to a farm in a drain we found a number of plants that had fine foliage so different to the normal foliage of Hakea ceratophylla. The foliage is long, thin, terete, and branches into short leaves in triangular formation. The seed capsule is the same as Hakea ceratophylla. Members on the excursion were most taken by this plant.
Hakea florida. Finding plants of Hakea florida has proved to be elusive, however Margaret Pieroni showed me a plant in her garden. The leaves on this one are narrow linear (1.5-5cm long x 3-25mm wide) with 1-10 sharp teeth each side but others can have more elliptic type leaves with dentations on each side. Unfortunately there was no seed to identify it as Hakea florida; it has the largest seed capsule (2.5-4cm x 1.5-2.3cm) of all the species in the oleifolia group. Margaret has since sent me a photo of her plant with a large seed capsule.
Hakea falcata. This is a species that grows back in the forest and often near water courses. It has fine flat curved linear entire leaves (5-14cm x 3-9mm) and grows to about 2.5m. There are 3 longitudinal veins top and bottom and secondary veins which are not very obvious. At one location on the Denmark – Mount Barker road there was a lovely stand growing with Hakea ferruginea. The flowers are small creamy and profuse. The seed capsules (2-2.5 cm x 0.7-1cm) are narrowly ovate and curved. In our gardens it does not like exposure to extreme heat preferring dappled shade and regularly waterings over summer.
Hakea linearis. On the Ocean Beach Road leading down to Wilson Head at Denmark we stopped beside a bicycle path to look at a plant of Hakea linearis. This species is in the varia group and it is not always easy to recognize it. However once you have a detailed look at the long linear (2-8cm x 2-7mm) leaves with 1-5 teeth each side it becomes obvious what to look for in identification purposes. The seed capsules are obliquely obovate with a recurved apex (1.5-2.5cm x 0.7-1.0cm). I have a plant here in Elliminyt flowering away in January when most Hakeas are dormant. The white flowers are profuse along the branches. Again prefers dappled shade in warmer areas.
Hakea oleifolia. This species is fairly widespread around the coast from Bussleton to Bremmer Bay. What inspires me about this plant is its toughness as at Wilson Head south of Denmark facing the ocean in sands that are probably alkaline, where it grows into large dense bushes. It also grows quite

well in clay loam soils in our gardens. Leaves are flat, elliptic (2.7-8.5cm x 5-25mm) usually entire but can have 1-4 teeth per side. White flowers. Seed capsules 2-3 cm x 1.3-2cm) with pustules on surface.

Well that concludes the details of the October 2018 Hakea excursion. We finished up at Mount Barker where Kevin and Cathy Collins allowed us to have a wander through their magnificent garden, which included looking at Hakeas as well as Dryandras and Banksias. It was a great three days learning more about Hakeas as well as renewing acquaintances. Fortunately the weather was kind to us which down that area of WA can be very changeable.

I have not said anything about the two days before the Hakea excursion that Tom Constant and I spent with Jean Sloane out at Kondinin. Jean is a licensed seed collector and knows where all the native flora is in her district. She took us around the district looking at locations of Hakeas and discussing observations she had made, in particular the different forms of Hakea preissii. In the June newsletter I will deal with what happened over those two days.

Hans Griesser. Photographing of Hakea seedlings.

Hans has a lovely collection of Hakeas growing in the northern Adelaide hills. Hans has written the following in the hope that some members will be interested in taking up his proposal as another facet of building up our knowledge of Hakeas:

"While talking with Dr Robyn Barker of the SA State Herbarium about identifying Hakeas at an early seedling stage, we commented on how different the leaves of young plants can be to adult leaves. Dr Barker mentioned that some years ago they started a project on documenting early stages of the growth of Hakea seedlings and juvenile leaves. But they did not have the resources to complete the project (funding for research can be fickle), so I was wondering whether the Study Group could be a means of organising a collective distributed effort involving a number of members: the collection of photographs of young seedlings. There are several reasons why I think this would be useful. I was connected with a grower who was wondering what his Hakea seedlings were. Also I am not sure about the identity of that mystery hybrid raised from seed from Thelma Vandepeer's garden. Thirdly I have noticed that some seeds in the APS SA seed bank are labelled incorrectly (never a problem with your seeds!). Fourthly I remember being puzzled by seedlings having leaves distinctly different to mature leaves (which vanish after a few sets of leaves as the plant grows).

If we were to build a data base with photos of young seedlings, we could open up a means of identifying or verifying seedling plants early. This could be quite interesting- for example I noticed that among the varia group, young plants tend to have much broader leaves. A data base might also help with early identification of possible hybrids, when they don't match any of the photos in the data base. What do you think? Might we get enough growers photographing their young Hakea seedlings to build a useful data base?"

Editor: I would welcome members becoming involved in this. There may be a requirement to add notes in relation to veins in upper and lower leaves. Dean Nicolle, the Eucalypt specialist has had the seedlings of all the 1000 plus Eucalypts painted at the seedling stage.

Seed bank.

The seed bank has a lot of species available to members. Now is a good time to put seed down whether in potting mix or growing by the saucer method. Remember the night time temperature needs to be above 15 degrees C to trigger germination of most Hakea species. A special thanks to V Tanner for sending in seed.

Barry Teague has not had good success in germinating Hakea seed in the heat at Swan Hill. He wonders if putting Hakea seed capsules in paper bags under glass to get them to open creates just too hot an atmosphere and finishes up cooking the seed. In the wild seed capsules open after a fire, when mature in some species or when a branch dies. What do members think?

Members are seeking seed of H. bakeriana, brachyptera, candolleana, clavata (it will grow from cuttings in February), denticulata, eneabba, macrocarpa, polyanthema, strumosa, rhombales and any central Australian or subtropical and tropical species.

Finance and Membership.

Balance forward	3280-04
Income from membership dues	272-00
Expenditure	
Printing and postage of newsletter No 68	83-40
Balance as of 31st. January, 2019	3468-64

Thanks to all members who have renewed. I hope I have acknowledge your renewal.

The story about Hakea victoria.

I heard on radio recently the story about Charles Gardiner and Hakea victoria. Apparently Charles Gardiner was down in the area later to be named the Fitzgerald NP when he came across plants of Hakea victoria. He was so taken by the colour of the leaves that he thought it had the potential to become a plant grown around the world and that he would have the honour of introducing it. He collected seed and brought it back to Perth where he subsequently sent seed to his friends in other parts of Australia and around the world. He wrote of the leaves changing colour with age and how magnificent it looked as a spectacular plant. In due course he and his friends germinated seed and grew on plants towards maturity. However they were disappointed that the colour he wrote about did not occur. What Charles Gardiner had not noticed was that the Fitzgerald flora grows on some of the poorest soils lacking minerals. What was happening was that to keep the new leaves green the plant was transferring what minerals it had from the old leaves to the new. Hence the red and yellowing colouring of the old leaves. It took a long time for Charles Gardiner to come to terms with this.

Notes from members.

Miriam Ford says her Hakea seed germination has been excellent. She is going to send a report and photos for members' information.

Hans Griesser says his Hakeas in the Adelaide hills are growing well. Hakeas elliptica, linearis and florida have flowered in summer and his two plants of Hakea chromatropa are putting on growth. Tom Constant rejoice!!

Graeme Krake from Brogo says he is still battling with deer and wallaby attacks to his plants but is making headway. Royce Raleigh says rabbits are becoming a real nuisance in the northern Grampians. He has some very old Hakea species.

Cathy Truss has sent in seeds of Hakea collina, which survives in breakaway country around Quilpie. The drought out there is very severe, however some plants have flowered.

In my garden.

Only 3mm of rain in January and no sight of any on the horizon. The weekly watering of plants continues. A lot of Hakeas are still putting out new growth, which is good but I hope they are not likely to be stressed later. Hakea linearis and ruscifolia are in flower. The Hakeas in the multilineata group are budding up but will not open for at least another six months. Hakea recurva ssp. recurva is continuing to have bursts of growth of up to 200mm at a time. It loves these hot dry conditions. The rare Hakea fraseri plants have also been putting on new growth. Whilst Hakea macraeana is temperamental to the heat and dryness, others from the higher altitudes such as Hakea asperma from the Nunniyong plateau and Hakea macrorrhyncha from the Queensland –NSW border are showing no signs of damage from the heat.

One of the reasons that I have had to stake plants is that I probably leave the green plastic bags on too long. The seedlings as they grow are protected from the wind and so their root system is

not robust enough to support the plant when exposed. Earlier removal would probably be more beneficial. I also find that cutting of any dead branches, damaged tips etc. stimulates new growth. I sometimes wonder if when insects damage growth they leave behind some substance that restricts the emergence of new shoots.

I thank Margaret Pieroni for her photo of Hakea florida and Jennifer Young for her photo of Hakea ceratophylla (fine leaf) and lasiocarpha. I am advised that the photo on the last page of newsletter No. 68 of Hakea ilicifolia is actually Hakea florida. My apologies as I should have picked it up. I hope we get some decent rain soon, but not as much as those in northern Queensland.
Cheers, Paul.

H. archaeoides at Elliminyt

H. florida at Denmark

H. lasiocarpha

H. ceratophylla (fine leaf)