AUSTRALIAN PLANTS SOCIETY AUSTRALIA

HAKEA STUDY GROUP NEWSLETTER NO. 70

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Dear members.

The last few days of late April have seen the weather cool down significantly and with some rain. It has been a difficult summer period as there has been very little rain and with so little moisture in the soil our natives have been stressed to survive. However, there are signs of new growth and budding up to flower. Here in southern Victoria I have continued to plant out Hakeas during the summer as the seedlings became big enough to go in the ground. The warm ground plus added moisture gets them off to a good start prior to the cold weather. My propagation success was not great this summer with many waiting to the autumn to germinate. Barry Teague at Swan Hill put seed down in October and most did not respond till April when the change in season occurred.

Recently I took a trip up to the Grampians to see the gardens of Royce and Jeanne Raleigh and Neil and Wendy Marriott. Both have Hakea collections of over 100 species and I was quite surprised about how well they were surviving despite the very dry conditions. Some of the Hakeas in the Raleigh garden were planted some forty years ago and give us some idea of how long some Hakeas can live given the right conditions and some pruning.

2018 visit to Western Australia.

I have reported on our Hakea excursion, but have said nothing about the two days prior when Tom Constant and myself met up with Jean Sloan at Kondinin. Jean has a permit to collect seed (mainly Eucalypts) but has a keen eye in observing other local flora as well. She had made up a booklet on Hakea occurrences in the Kondinin-Kulin area and was wanting us to verify her observations. In all we saw some thirty-five species.

One species that Jean showed us was the two forms of Hakea preissii. Around the edges of salt lakes Hakea preissii tends to grow as a low dense suckering form or from a lignotuber. I did not have tools or protective clothing to investigate further but it shape is far different from the tree form we saw in dryer areas. It would be interesting to grow both forms and see if they came true to shape. The low form would probably tolerate much more moisture. The northern forms of preissii tend to have longer leaves and narrower in diameter and be more open than the southern forms. I am told that the seed capsules are also larger in the northern forms. Some of Jean's specimens from the Hyden area tend to be of the northern form.

Also growing around salt lakes was Hakea kippistiana. It has longer and narrower grey-green leaves than preissii and tends to be a tall shrub. The seed capsules are also different.

The other Hakea we were interested in observing was H hastata. I had seen the small-leaf form at Katanning but knew it also grew in the Kulin area. Jean had found some on a roadside near Harrismith and I was surprised to see that they looked more like Hakea ferruginea as the leaves and seed capsules were much larger. As the plants in the Kulin area were well outside the range of occurrence for ferruginea (Albany- Hopetoun and Stirling Ranges) I consulted the Flora of Australia, Vol. 17B which showed that there was a wide difference in leaf and seed capsule size. However the seed capsule does not have a long tapered point but more of a blunt point. Jean has since found some more locations for me to look at when I am next over there.

I will not mention all the Hakeas we came across but there were some magnificent specimens. In a plantation south of Corrigin was a lone specimen of Hakea pendens. The growers obviously got their seed mixed up

but it is far easier to observe than having to go out to the Parker Range south of Southern Cross. The plant was in flower so there was no mistake as the pink flowers hang down like a woman's skirt.

Others of note were a lovely plant of Hakea platysperma near the Kondinin airstrip and a huge plant of Hakea lehmanniana that was 2m in diameter and 1m high. It received some extra moisture from the asphalted road and was growing in a loam soil.

Mike Beamish from Boolarra writes:

Hakea orthorrhyncha

My specimen is planted on the northern fence line of the block and would be close to ten years old now. It had plenty of space when planted, but over time became more and more crowded by its neighbours, in particular a *Darwinia*

citriodora. This may have contributed to the Birds Beak Hakea growing into a very bent and twisted shrub, which appears to rely on the fence to keep it upright. Over the summer of 2016-2017, the Darwinia died and was subsequently removed, exposing the trunk of the Hakea to much more light and weather. The Hakea sparsely flowered in the spring of both 2017 and 2018, mainly on the upper branches, none on the trunk. In early 2018, I noticed new growth at the base of the Hakea, presumably arising from the lower trunk and/or the lignotuber. To date, this new growth is still only perhaps 50cm long and quite thin, so I'll wait and see whether I end up with a multi-branched shrub with the same twisted character as the initial branches.





Other Hakeas in the Garden

My large old locals, Dagger Hakea (*H. teretifolia* subsp. *hirsuta*) and Willow-leaf Hakea (*H. salicifolia*) are still going strong and are both over 5m tall, the latter being an annual favourite of Black Cockatoos, which don't let it get any taller. The former came from a seed off a wind-pruned plant at Wilsons Promontory that was less than a metre tall, so its short stature was obviously not a genetic characteristic passed on to offspring. *Hakea dactyloides* is also well over 5m tall and a bit leggy as it searches for the light from underneath taller Eucalypts. I'm going to prune it back hard to about 1.5m shortly, to see if it will re-sprout from the trunk or lignotuber, but I'll get some seed going first. *Hakea eriantha* is a short, scraggly thing, covered in capsules, which probably should be replaced by one of its offspring. Other than the Bird's Beak, I have only three western Hakeas that have survived in the ground and seem established. These are *H. francisiana* (grafted and 6m tall, never pruned), *H. varia* (very vigorous and sprawling, 2m high but much wider if I don't prune it) and *H. elliptica* (a solid 4m tall street tree). I've tried and failed with many other species, both eastern and western, too numerous to list here. They either don't thrive at all, they grow well for a short time before

succumbing to Sudden Summer Death Syndrome or they grow really well, get too big for their root systems and fall over in the next gale.

I have other Hakeas in the ground or in tubs, but I wouldn't call them established as yet. These include *H. asperma* (a cutting from Paul, in the ground for a year, still only 20cm tall), *H. megadenia* (nearly a metre, should be right), *H. drupacea* (seedling from my own 4m tall plant that fell over 2 years ago), *H. leucoptera* (newly planted), *H. verrucosa* (in a tub) and *H. cristata* (also in a tub, a seedling from seed collected in 2016).

Propagation

I'm forever hopeful that I'll get the rare or spectacular Hakeas to survive here one day, so I keep collecting seed and giving them a go. Also, I'm reluctant to pay for nursery plants that are spoilt by propagation in ideal conditions and are just as likely to die before I get them out of their pots, when they are exposed to my climate (800-1200mm annual rainfall, cold, wet winters and warm, sometimes humid summers) and soil conditions (heavy brown clay loam, built up in some beds).

I have sown seed from 24 species of Hakea since November 2018, about a third of them unidentified, either because I was sometimes unable to identify them when I collected the seed or mostly because I failed to label them and have since forgotten what they were and where they came from.

Sown on 14/11/2018, I have;

- H. nitida 2 seedlings from 4 seeds, potted into 6" pots, one of which has recently damped off.
- *H. cristata* 1 seedling from 3 seeds, potted into 6" pot.
- H. tuberculata 5 seedlings from 10 seeds, potted up into 4" pots.
- H. ruscifolia 4 seedlings from 6 seeds, potted up into 4" pots.
- H. petiolaris subsp. petiolaris (I think) 2 seedlings from 4 seeds, into 6" pots.
- H. petiolaris subsp. trichophylla (I think) 7 seedlings from 8 seeds, into 4" pots.
- H. gilbertii 8 seeds, no movement.
- *H. ceratophylla* 4 seeds, no movement.
- *H. trifurcata* 14 seeds, no movement.
- *H. ilicifolia* (small capsule form) 6 seeds, no movement.

Of 5 unknown Hakea species, 4 have germinated, 1 with 100% success (8 from 8) and now potted up into 4" pots. Looking at the leaves, I'd guess this might be *H. laurina*, so no surprise with the germination rate. Of the other 3, germination rates are 2 from 4, 1 from 4 and 1 from 4 again, all potted up.

Sown on 08/01/2019;

- *H. cucullata* (prostrate) 4 seedlings, 100% germination.
- *H. ilicifolia* (large capsule form) 1 seedling so far from 4 seeds.
- No germination yet from *H. incrassata, H. preissii, H. cucullata* (erect) and 2 unknown species.

Sown on 04/02/2019, no germination yet from *H. archaeoides, H. rostrata* and *H. salicifolia* (fine leaf form). Sown on 14/02/2019, no germination yet from *H. leucoptera*.

From earlier in 2018, there is (or was) *H. mitchelliana*, which germinates for me but doesn't seem to like being potted up, 3 seedlings didn't survive the winter. *H. decurrens* from the Yeerung River Gorge, near Cape Conran had a 100% germination rate, but only 1 survived not being watered sufficiently during a 10-day period in late December. Some *H. cinerea* also germinated, 7 seedlings from 20 seeds, but only 2 of these remain. *H. ulicina* from the Anglesea area was 50% successful with 3 seedlings from 6 seeds. Some of these will be planted out after the autumn break this year. Earlier still, back in 2017, Paul gave me 7 *H. chromatropa* seeds, of which 2 germinated fairly quickly, but 1 damped off just as quickly. The other is still struggling along in a 3" tube, but is very slow and looks fragile even though it gets a regular feed of native (low phosphorus) soluble fertiliser.

Editor: Thanks Mike. For seed put into containers I think October and April are when it is more likely to germinate in your climate.

Vale Max Ewer.

In March 2019 Max died in his 97th year. Some will remember Max as a great propagator of Hakeas and he would bring along some 110 species for sale at the APS South Australian plant sale. Max served in the second world war in the navy and afterwards took up a soldier settler farm at Lucindale. He had a wonderful garden on a sandhill and grew the Hakeas in rows so that he could use farm equipment to mow the grass and trimmed the Hakeas by a slasher fitted to the tractor. The plants looked like a box when done but quickly put out new growth. Max outlived all his friends but he did have a love for people and gardening. I hope his garden continues to be maintained as we are losing too many native gardens when owners die or have to move on for health reasons.

From members.

Brendon Stahl from Colac says one of his Hakea erianthas has reshot from the base. The plant had appeared to be dying from the heat and extreme dryness and he was about to remove it when he noticed new growth coming from the base. Apparently some forms of Hakea eriantha must have a lignotuber and therefore can reshoot.

Tony Hughes from Winchelsea in Victoria has been trying cuttings of various Hakeas to see if they will propagate from cuttings. One that I did not expect to grow from cuttings was Hakea aculeata. Of four cuttings put in, one has roots and the other three look promising. The material was taken in October, so it has taken four months.

Financial.

Brought forward	3282-04
Income, subscriptions	340-00
Expenditure.	
Newsletter No. 69, print and postage.	53-80
Balance	3568-04

Photos of Hakea seedlings.

Cathy Powers, Hans Griesser and myself have started photographing Hakea seedlings. I went up to see Barry Teague at Swan Hill and was able to photo nearly 20 species, so we are well on the way. These hopefully will be put onto a USB stick and to members on the internet so that members can use it as another tool to verify that their seedlings are what they are labelled. However a couple of other matters have arisen which are being addressed.

Royce Raleigh has looked at the original booklet we did for the Fred Rogers seminar weekend way back in 1996. Royce has suggested we look at updating the booklet using the latest computer technology by replacing the drawings with photos of plants and seed capsules and improving the text. This would eventually lead to having all the Hakea species on one disc or USB stick. The idea of having a book on Hakeas of Australia may come from this. It would in no way distract from the wonderful book put out by Jennifer Young on Hakeas of Western Australia, which is now out of print but Jennifer has plans to re-publish it.

The other matter concerns The Hakea Study group members photographing Hakeas in the wild, collecting a specimen of branch and seed capsule, germinating a seed and photographing at seedling stage for the Adelaide Herbarium. This will involve a lot of travelling and present thinking is that those involved will need to have a collectors permit, which are very difficult to come by. I am awaiting further advice from the Adelaide Herbarium.

With this newsletter No. 70, I have now edited half of them and probably 75% of all the content. I thank all the members along the way who have helped me. I spoke with Royce Raleigh who was the first Study Group leader way back in 1972 and asked why he only did it for only a couple of years. He said it was about the time he and his wife Jeanne set about building a house on their property at Wartook in the northern Grampians and he was also doing further studies so he had to retire from the Study Group leadership role. The first couple of newsletters were done on a typewriter and I do not have copies of these.

I wish everyone success in growing Hakeas, the frosts not too severe and plenty of flowering. Cheers, Paul.





Hakea aculeata

Hakea neurophylla





Hakea bakeriana

Hakea brachyptera

The first three are from Paul's garden, the last photo is from Max Ewer's garden in 2011.