

AUSTRALIAN PLANTS SOCIETY AUSTRALIA

HAKEA STUDY GROUP NEWSLETTER No. 77

OCTOBER 2021

ISSN0727-7008

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Dear members.

A large part of southern Australia has had above normal rainfall in 2021. Tom Constant from Bullsbrook, north-east of Perth, recorded 250mm in July and Perth itself had 271mm. Luckily the deep costal sands soak it up quickly and at Tom's place the ground is so steep it just runs down to the creek at the bottom. Here in Elliminyt we have had a very wet May to September and I have to wear gum boots to walk across the grassed areas of the garden. I just wish it would stop raining and have a few weeks of sunny dry weather. Nevertheless I have lost only *Hakea polyanthema* from the wet and constantly have to clean out the drains from blackbirds scratching mulch into them in order to keep the surface water flowing to the council drain.

From my observations *Hakeas* that can tolerate a fair degree of wetness are *microcarpa*, *teretifolia*, *gilbertii*, *oleifolia* and *commutata*.

The winter flowering season has been wonderful. Nearly all my mature *Hakeas* have flowered and I have had the opportunity to observe the distinguishing features of each species. The cold weather has probably caused some to flower later, such as the *multilineata* group where flowering took place in late August and yet those pictured on Facebook from Western Australia and inland NSW where flowering from mid July.

Despite my efforts to prune, many *Hakeas* have grown so much in conjunction with other natives that one plant is now intertwined with another. The resulting appearance is not too bad as there is no bare ground to be seen and the weeds cannot compete with the density of greenery. *Hakea oldfieldii* looks very much at home scrambling through *Banksias* and spreading out for meters and it resembles the way I have seen it in its natural condition in the west. The two *Hakea recurva* ssp. *recurva* are now 3m tall. They are planted in the middle of a garden bed so that no one comes in contact with their rigid horizontal terete leaves. New growth occurs in quick spurts such that in a matter of a couple of days 200-300mm on new growth occurs. I was hoping for a lot of large cream flowers from the buds, but so far only one flower has appeared. Another species I have been watching is *Hakea rigida*. When a small seedling the leaves are quite lanceolate and gradually change as the plant gains height to have a very narrow V shaped or hexangled shape which is erect. The pink flowers are really beautiful and it deserves a place in our gardens provided you have a raised bed of sandy soil in a sunny location.

Hakea crawl and other activities

The coronavirus situation in Victoria has prevented me from leading the proposed *Hakea* excursion in the Jerramungup area of Western Australia. The Western Australian members for various reasons were not able to get together and do some *Hakea* sourcing in that area and in the finish only Jennifer Young was able to travel and visit the Ravensthorpe flower show as well. The above average rainfall has meant a great flowering season. I am hoping we may be able to wander

west next year as the country cannot economically afford to continue with lockdowns and border closures.

Propagation.

As a number of Hakeas are endangered or poorly known and not in members gardens, efforts are now underway to overcome this situation. I have supplied cutting material to members who are trying to graft them onto various Hakea rootstocks or propagate from cuttings. So far there has been considerable success with grafting of the more common Hakea species. The next step is to try grafting of the Hakeas found out in the far western areas of Queensland and one of our members is heading out that way in early October. These include Hakeas collina, maconochieana and the corkwoods in ivoryi, lorea ssp lorea and chordophylla. These have always proved difficult to grow because of soil and climatic conditions and difficulties in obtaining seed as they do not retain their seed which is shed when the weather is hot. I do have plants of all of them here in Elliminyt but they are very slow growing and do not like our cold wet winters. Previously at Strathmerton in northern Victoria on deep sandy soils I did have success with most of them flowering and setting seed when they were about seven years old.

I am grateful to a member in Northern Queensland who has sent me seed of Hakeas arborescens, plurinervia (benthamii), persiehana and trineura. I have been successful in germinating these subtropical-tropical species and planted them out in early winter in sandy soil. We had a couple of light frosts but the non-covered Hakeas trineura and plurinervia have grown considerably and I have confidence they will do well here despite the much cooler climate. Two each of Hakeas aborescens and perieshiana were planted out and covered and to date I have lost only one of the arborescens. I am hoping when the weather warms up they will put on some rapid growth. The other tropical Hakea from Cape York, Hakea pedunculata, has also survived with a plastic cover around it and I hope in due course we can obtain more seed or cutting material to allow grafting of this species.

Hakea asperma. One of the two plants in my garden has now sent up numerous suckers from underground roots. Not wishing to let it take over the whole garden bed I have dug up a couple and potted them on for members to have.

Seed bank.

I am pleased to report that a number of members have asked for seed and it has been a pleasure to be able to supply most of the requested species. I do have a small quantity of north Queensland species and hopefully more will come later in the year. A special thanks to those members who supplied seed.

Seed of Hakea species divaricata, macrocarpa and standleyensis would be most welcome. If you know someone in the Alice Springs area who would be willing to collect seed, please let me know. Also seed of Halkea orthorrhyncha ssp orthorrhyncha which grows in the Kalbarri area, Hakea rhombales from the Wiluna area in WA, Hakea polyanthema from Mount Lesueur, and Hakea stenophylla ssp stenophylla which grows north of Carnarvon in Western Australia.

Notes from members.

Phil Trickett and Catriona Bate from Milton, NSW have experienced a drier than normal start to winter but their garden, after enduring drought and fires, is now looking superb. Hakea bucculenta has flowered for six months and others that have flowered are Hakeas ilicifolia, purpurea, francisiana, tephrosperma, macreana, and ochroptera.

Neil and Wendy Marriott have been planting more Hakea species and now have over 120 species in the ground. The granitic soils drain freely and many Hakea species seem to do very well.

Jennifer Young from West Perth has a Hakea orthorrhyncha growing very well in her

small front garden. She has lovely sandy soil and there is a permanent fresh water lake nearby, so the water table is a couple of meters down.

Una Gaff from Gilgandra has sent me a few seeds of *Hakea divaricata* which flowered for the first time in 2020 after the drought. She says the flowers are similar to *Hakea eyreana* but the pistil is more cream than green.

Hans Griesser has had many *Hakeas* in flower including *chromatropa*, *platysperma*, *invaginata*, *lissocarpa* and *multilineata*.

Some of the *Hakea lorea* ssp *lorea* in flower from Burrendong arboretum in NSW and from northern parts of Queensland with their lovely long drooping terete leaves have featured on Facebook. Many people would love to grow this species and whilst it will tolerate a variety of soils and climates it is slow growing especially in cooler climates. Plants probably do not look their best under twenty years of age.

It is pleasing to see people put up photos on Facebook of *Hakeas* because it creates interest in the genus and the growing of more of the species. It also gives me the chance to comment on particular features and growing conditions of *Hakea* plants.

Financial.

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|---|-----------|
| Balance forward 1 st July 2021 | 3763-89 |
| Income | |
| Subscriptions | 115-00 |
| Expenditure | |
| Printing and postage Newsletter No.76 | 38-70 |
| Balance forward. 1 st . October 2021 | \$3840-19 |

I welcome Lynette Alcock from Western Australia to our *Hakea* Study group.

I am slowly contacting members whose subs are due for 2021/2022.

The Strumosa Group of Hakeas.

In the Strumosa Group of *Hakeas* there are *vittata*, *preissii*, *newbeyana*, *commutata*, *circumulata*, *bicornata*, *strumosa* and *cyclocarpa*. Some are easy to identify in the wild or garden but others have very similar features.

Hakea strumosa.

This is usually a compact shrub 0.5-1.0m tall. The terete leaves are simple, 2.5-11cm long and 1.3-1.8mm diameter with a mucro that can be up to 4.8mm long. The axillary inflorescences are usually made up of 4 flowers but sometimes can have up to 10. The pedicels are 2.5-3mm long with buds curved and perianth 3-4.2mm long, yellow and red in color. The pistil is 6.5-8mm long and the pollen presenter an oblique disc. The fruit are quite large, obovate 3.5-5cm long and 1.9-3.4 cm wide with a rugose texture. The seed is 20-34 mm long with the wing encircling the seed body, off white with black lines. The flowers are quite small and numerous, the perianth parts splay open in a similar fashion to *Hakea platysperma*, thus exposing the nectar source. Flowering is recorded from September to November. It occurs in the Tammin to Merredin area of Western Australia and south to Bremer Bay and the Esperance area. There are two leaf color forms which I grew at Strathmerton in northern Victoria on sandy loam, one is green and the other is a purple/blue color which is quite attractive. I have seen both forms in the wild on sandy soils. I am not sure the color will come true from the seed.

Hakea cycloptera.

This species comes from the Eyre Peninsula in South Australia where it grows on sandy soils in mallee scrub and flowers from December to August. It is usually a dense bush hugging the ground but can grow up to 1.3m tall. It is known as the "elm seed *Hakea*". The terete leaves are simple, 1.5-14.5cm long and 1.1-1.9mm diameter with a short mucro of 2.8mm maximum. The

leaves are grey-green in color. The inflorescences are axillary with 1-14 flowers, pedicels 2.5-6mm long, perianth 4-6.5mm long, white or pink, and pistil 7-12mm long. The fruit is broadly elliptic to circular, 2.5-4cm long x 2-3.4cm wide and with a rugose or pitted surface. The beak is oblique with horns to 5mm. The seed is oblong-elliptic 24-38mm with the wing encircling the seed body, brown to brown-black in color. The seed is not in the center as one side of the wing is much wider than the other, whereas with *strumosa* they are nearly equal.

Hakea vittata.

This is a poorly known species from Kangaroo Island, the Fleurieu Peninsula and the upper south east of South Australia. It grows in sandy soils in mallee scrub and usually associated with limestone, so the pH will probably be alkaline. However it will grow quite well in acid soils. It is a prostrate to medium height dense shrub which flowers from August to November. The leaves are simple, terete 2-8cm long x 0.8-1.5mm diameter with a mucro to 2.5mm long. The inflorescence is axillary with 1-8 flowers, rarely more. Pedicels 2.5-4.8mm long, perianth 4-6.5mm long and white and pistil 9.2-11.5mm long. The fruit is ovate to broadly ovate with prominent horns to 3.3mm long, 1.3-2.4cm long x 0.9-1.5cm wide and flatter. The seed is oblong-elliptic and encircles the seed body. The wing is black. *Hakea vittata* has two features in that there is the presence of witches broom galls resembling tight clusters of small leaves and the fruit splitting past the seed tip and only down on the side of the red brown wood zone. The plants here at Elliminyt have grown slowly, probably due to the wetter conditions and drainage not as perfect as in the wild. However, it is worthy of a place in our gardens as it is not often grown by native plant growers.

If you wish to look at more photos and drawings of the above three species, then refer to Jennifer Young's book on Hakeas of WA for *Hakea strumosa* and Ivan Holliday's booklet on "Hakeas, a field and garden guide".

Photos. Hans and Hannes Griesser have sent me photos of Hakeas in flower in Hans' garden at Gumeracha in South Australia. The ground is loamy soil on a hillside and with a reasonable yearly rainfall of 600mm plus and the Hakeas do very well. The photos are of *Hakeas brachyptera*, *chromatropa*, *platysperma* and *strumosa*.

I thank Hans also for his efforts in inserting the photos into this newsletter.

Also added to this newsletter is an article by Ben and Rosalind Walcott on growing of Hakeas in their Canberra garden on clayey soils where winters can be very cold and frosty and summers hot. It has been inserted at the rear so that the color pages are together. I hope it entices more members to write about their efforts.

The weather has warmed up slightly as I finish this newsletter in late September, however the rains have not abated and the ground is still very wet. The majority of Hakeas prefer drier conditions but we do not always have the choice of picking that perfect property as other living requirements come into play. Around my study I have saucers spread out with Hakea seeds germinating to further my collection and increase the numbers of the rarer species. As we keep the house temperature above 16 degrees C this seems to trigger the germination. Most take 7-12 days to germinate but the *Hakea divaricata*s were up in four days.

In my garden at present (late September) the pink flowers of *invaginata*, *neurophylla*, *cucullata* and *rigida* make a great contrast to the white flowers of *macreana*, *ochroptera*, *horrida*, *cyclocarpa* and *gilbertii* and the cream to yellow flowers of *ilicifolia* and *plurinervia*.

I hope we have a better year in 2022 to travel around and I wish you all a happy Christmas in the meantime.

Cheers, Paul.



H. brachyptera



H chromatropa



H platysperma



H strumosa

Hakeas in Cold and Clayey Soil

Words Ros Walcott, Canberra

Photos Ben Walcott, Canberra

Website walcottgarden.com

We grow more than 40 different hakea species in our Canberra garden with clay soil and cold winters. I feel that we are experimenting on the edge of hakea tolerance for some species which enjoy hot weather and sandy soils. Most hakeas grow slowly in our garden and take a long time to flower. However, some, like *Hakea bucculenta* and *Hakea multilineata*, have grown to 3-4 metres high and bloom reliably each year, giving us great pleasure.



Hakea bucculenta x
francisciana (left)



Hakea multilineata (right)

The most successful hakeas in our collection are *bucculenta*, *coriacea*, *macreana*, *mitchellii*, *multilineata*, *nitida*, *pachyphylla*, 'Pin Ball' and *varia*. For much more information about our hakeas and photos of all our plants please go to our website, walcottgarden.com, click on the heading Our Plants, then Hakeas.



Hakea coriacea



Hakea nitida



Hakea varia

Every fortnight Ben and I produce a brochure, Flowers, Fruit and Foliage, for the Australian National Botanic Garden, (ANBG). I pick out 15 plants with interesting flowers, fruit and/or foliage, write a short description, then Ben takes photos of each plant and creates a map of our walk and completes the brochure. Our brochure is popular with both ANBG guides and visitors and the ANBG can print as many as 500 of these brochures each fortnight. Neville Page, current President of the Friends of the ANBG, then videotapes the walk and Ben and I voice each video, which is then loaded onto the Friends of the ANBG website, www.friendsanbg.org.au <https://youtu.be/afqai28x87o>. This walk often includes flowering and fruiting hakeas. Section 20 of the ANBG contains many old and venerable specimens of hakeas, some up to 50 years old. Most of these have been given plenty of room to grow and have not been pruned much, if at all. Descriptions of some hakeas at the ANBG and some of their larger dimensions follow. I am sure that many of these hakea species reach larger dimensions elsewhere, but under our conditions this is probably their maximum.



Hakea archaeoides (left) is a bushy shrub with oblong leaves and pendulous red flowers followed by clusters of grey woody nuts. This plant is native to the north coast of New South Wales and is listed as vulnerable in the wild. 3m high

Hakea constablei (below) is a bushy shrub or small tree with very large brown nuts and white clusters of flowers at the end of the branches. This plant is endemic to the Blue Mountains near Sydney and was named after Ernest Constable, a plant collector for the Royal Botanic Gardens, Sydney. 4m high x 3m wide



Hakea corymbosa (left and right) or Cauliflower Hakea, a small tree with incredibly prickly foliage and greenish cream flowers in stiff bunches. This plant is native to southwestern Western Australia. The specimen in the Rock Garden at ANBG is the largest I have seen, 3m high and 3m wide.



Hakea drupacea, (left) commonly known as Sweet Hakea, is an open tree or shrub with green, sharp-pointed leaves and white starburst flowers. This plant is native to southwestern Western Australia. 3m high x 8m wide



Hakea horrida, (above right) has extremely prickly, intricate needle foliage and strongly scented white fluffy flowers. This plant is native to southwestern Western Australia.



Hakea macraeana, (left) or Needlewood, is a small tree with fine drooping foliage and white flowers along the stems. This plant is native to eastern Australia. 10m high x 10m wide.

Hakea obtusa (right) is a small tree with leathery foliage and dark pink powderpuff flowers along the stems. This plant is native to the southwestern coast of Western Australia. 3m high x 4.5m wide





Hakea pachyphylla (left) has soft green foliage and tiny cream axial flowers which are followed by woody fruits. This plant is native to the upper Blue Mountains of New South Wales.



Hakea petiolaris, (right) or Sea Urchin Hakea, a tall shrub with veined grey foliage and large clusters of nuts. This plant is native to south-western Western Australia.



Hakea prostrata, (left) or Harsh Hakea, is a large sprawling shrub with stiff green leaves, sharply toothed on the margins, and creamy white clusters of fragrant flowers. This plant is widely distributed in southwestern Western Australia. 6m high x 10m wide



Hakea pulvinifera, (above right) or Lake Keepit Hakea, with stiff, prickly grey-green foliage and white flowers. This plant is found only on one rocky hillside near Gunnedah in New South Wales. The species was first described in 1962, believed extinct in 1971 and rediscovered in 1988. The entire species may be of only one genetically unique individual.



Hakea purpurea (left) is a slender bush with green spiky leaves and bright pinkish-purple flowers growing in clusters from the leaf axils, which are followed by woody seed pods. This plant is found in open forest in southeastern and central Queensland, extending across the border into



Hakea recurva (right) is a large shrub with fearsomely prickly grey-green needle foliage and many pinkish-yellow fragrant flowers. This plant is native to a band east from the area between Perth and Geraldton. 6m high x 6m wide



Hakea rostrata (left) is also known as Beaked Hakea or Turkey Gobblers. This medium sized shrub has pointed green foliage and white axillary flowers and is native to South Australia and western Victoria in the Wimmera and Grampians regions.

Hakea scoparia subsp. scoparia, native to southwestern Western Australia. This plant has thin, linear, grey-green foliage and dense cream balls of flowers.





Hakea varia, (above left) or Variable-leaved Hakea, has hard, prickly, drooping variable foliage and small white starburst flowers. This plant is native to southwestern WA. 1.5m high x 3m wide

Hakea victoria, (above right) or Royal Hakea, has stem-clasping, green veined foliage with prickly edges. This plant is found in a restricted area on the south coast of Western Australia.