

AUSTRALIAN NATIVE PLANTS SOCIETY, AUSTRALIA

HAKEA STUDY GROUP NEWSLETTER No. 45

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Dear members,

It is the beginning of February here at Strathmerton and muggy weather prevails, which we are not used to, usually dry summer heat, but this summer has been one of the wettest. We had 118mm in December, 100mm in January and by the end of February another 115mm. We finished 2010 with 800mm of rain, the second wettest on record. Some places, one hundred klms. to the west of us had over 250mm of rain in January which brought about the floods in the north west of the state that are now draining into the Murray River which already is in moderate flood. Many of our members in Queensland and Central Victoria have experienced record breaking floods and rains and now our north Queensland members a cyclone as well. In this issue I plan to say something about how the Hakeas have survived these dramatic climatic conditions.

After so many years of drought, to receive nearly double our average rainfall in 2010 was a great relief. However the effect it would have on our native arboretum was quite astonishing. For the first six months, plants just sat and soaked it in, then, with the rain continuing into spring, most plants put on a big flush of new growth and flowering. Some of the Hakeas such as *newbeyana*, *adnata* and *francisiana* had what appeared to be dead branches but new growth has now appeared on them. On closer observation for those Hakeas that do not shed their seed on maturity if the seed capsules remain closed then the branch is still alive despite no green leaves on it. I had seen derelict bushes of *francisiana* on the Eyre Peninsula and wondered how they would respond to a good season, now I have a better appreciation of how these Hakeas respond to drought in an effort to survive.

The Hakeas from north of Perth and inland across Australia have welcomed the rains with new growth and in some cases a long period of flowering. *Hakea lorea* from Central Australia and southern Queensland flowered from May through to November. *Hakea ednieana* from the Flinders Ranges flowered in November for the first time, however its whitish flowers are not very showy and quite small racemes compared to *eyreana* and *ivoryi*. I had only one flowering spike on *ivoryi*, which I expected to flower profusely after all the rain. *Hakea macrocarpa* from north of Alice Springs grew rapidly but getting it to flower may be years off yet. The *Hakea chordophyllas* have grown slowly which says to me that soil type may also play an important role. The *Hakea rhombales* have finally put on growth needing that extra moisture to respond, maybe a chance of flowering this year. I looked at Max Ewers plants in May last year which are now quite large and had a glorious display of red flowers. Colder, wetter climate in sandy soils did not seem to affect them, considering they come from Wiluna area where the climate is extremely hot in summer and rainfall low.

The Hakeas from Mount Ragged in the far west of WA have been outstanding in flower. *Hakea scoparia* ssp *trycherica*, *pycnoneura* (the short leaf form) and the natural hybrids have all flowered at least three times during 2010 and are about to flower again now. They grow in a small band at the base of the mountain where large amounts of water off the quartzite rocks rush down and soak into

the ground forming the plain around it. It seems to respond to good soaking rain.

*Hakea fraseri* from the ledges of waterfalls near Armidale in NSW was another disappointment. I expected the wet conditions would have suited it but despite putting on new growth, it made no effort to flower at all.

When plants are exposed to a wet year there is also the possibility that large amounts of new growth will make the stems or branches heavy and cause them to break. I have very bushy forms of *Hakea hookeriana* about 2.4 m high and multi trunked. On one some of the stems split and when I came to pruning up the bush I was surprised by the weight of foliage. When wet it would be much more heavier again. I have been lax in pruning as I wanted to see how big the Hakeas would grow. The Hakeas from around Albany are still proving difficult to keep going. I lost *cucullata*, *lasiocarpa*, *ferruginea* and *elliptica* after the day of 48 degrees C in 2009 and attempts to get them going again apart from *elliptica* has not been successful. They not only need shade in this hot summer climate but also soils that retain some moisture. Our sandy soils dry out too quickly.

The eastern state species have all responded to the extra moisture as most come from higher rainfall areas. The grass hoppers are still plentiful but seemed to have left the Hakeas alone perhaps because there is plenty of green grass to eat.

Very few Hakeas flower over summer. *Hakea ruscifolia* is one that does and has mass display of flowers along its column like stalks. *Hakea collina* and *megadenia* has commenced flowering also.

#### Seed bank.

I have managed to collect some seed of *lorea* ssp. *lorea* (SE QLD form), *ednieana*, *standleyensis* and *ivoryi* from my garden plants. These species do not retain their seed. I also have seed of *hookeriana* and the red flowering form of *Hakea priessii*. Until we grow the different colour forms of this species and get it to flower we will not know if it comes true to colour from seed. Thanks to Jennifer Young and Max Ewer for sending seed.

#### Propagation.

With Max Ewer no longer propagating Hakeas, we badly need a nursery or a member to take on this task as there is a need to keep spreading the Hakea collection not only amongst members but amongst the public as well. If you know of someone who can help, please contact me.

#### Letters and e mails.

Cliff Wallis e mailed me to say his Hakea collection at Merimbula continues to thrive, but there have been some hot days up to 42 degrees C. Graeme Krake says the rainfall for 2010 at Brogo near Bega was well up on the previous year. He has had a couple of losses but is replacing them as seed germinates. A phone call to Bob Stewart at Maryborough in Victoria revealed the sorry story of many of his Hakeas dying from the 250mm of rain that fell over two days.

I suspect members out on the Western Plains of NSW will have lost Hakeas due to the large falls of rain over summer, and I hope to make contact with them shortly, after the grain harvest is finished.

New members. We welcome Trica Allen from the Mornington Peninsula in Victoria and hope the seed sent to her will germinate readily. The climate is ideal for growing many Hakeas.

#### Financial statement.

Balance forward.	2356 – 29
Income.	50 – 00

Expenditure. printing, postage N/L No.44	87 – 60
Seed, packets and postage	12 - 80
Balance as of the 28 <sup>th</sup> . February 2011.	2305 – 89

The *obliqua* group of *Hakeas*.

There are five *Hakeas* in this group. *Obliqua* ssp. *obliqua*, *obliqua* ssp. *parviflora*, *psilorrhyncha*, *adnata*, *brachyptera* and *polyanthema*.

The general botanical description for this group is flowers 1-20, white or yellowish, pedicels pubescent. Perianth curved in bud, splitting to base into four distinct tepals, pubescent. Pistal 3-11 mm long, pollen presenter an oblique disc, gland U shaped. Fruit retained on plant, woody, wrinkled, often with corky surface. Seed oval occupying most of valve, wing encircling seed body. The latter in most cases is enough to determine the species type along with the shape of the shrub and its leaves. The *Hakea obliqua* species generally grow into erect dense prickly bushes with masses of intertwined leaves. They can grow to 3m by 2m in garden conditions, but usually smaller in the bush. The small birds such as wrens love them for nesting as no predators can get in. They will grow in a range of soils from sandy loam to clay loam and once established are very drought tolerant.

The main features of the two oblique species are:

	Ssp. <i>obliqua</i> .	Ssp. <i>parviflora</i> .
Leaves, 1 to 7cm long, diameter	1.1 – 2.5mm	1.2 – 1.5mm
Pedicels	3.5 – 6mm	1.5 – 2.5mm
Perianth	5.5 – 7.5mm	4.5 – 5.5mm
Pistil	6.5 – 10mm	5.5 – 6.5mm
Fruit, length	3.0 – 4.4cm	2.7 – 3.5cm
Fruit, width	2.1 – 3.5cm	to 1.3cm
Fruit, surface texture with age	corky projections	sparsely corky

*Ssp.obliqua* extends from the eastern end of the Stirling Ranges in WA across to Israelite Bay and *ssp.parviflora* from Coorow (north of Perth) to the Fitzgerald National Park. Hence in the region around the Fitzgerald National Park and inland to Lake Grace and Lake King you can come across both. *Ssp.obliqua* flowers Sept. – Oct. and *ssp. parviflora* slightly earlier, but climatic conditions will have some effect on flowering time. Apart from plants in our garden, we may not be in WA when it is in flower, so observing the characteristics of the seed and capsule will help us identify it. It is a great plant for our gardens, especially if you have space to grow it in.

Around Esperance oblique ssp *obliqua* has much more corky fruit than those found around Ravensthorpe and this led to Mueller describing *Hakea brooksiana*, however there are no other characteristics to support a new species.

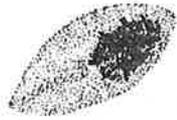
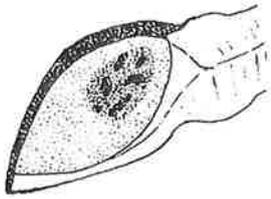
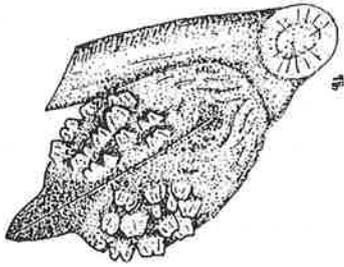
In this newsletter I have included a photo of the flower of *Hakea asperma* from the Victorian Alps. If we can propagate this species I would like to try it in some of the colder areas such as Armidale in NSW and Gisborne in Victoria where the climate is a lot cooler. The drawings of the two forms of *Hakea obliqua* have come from Geoff Cooke in Bairnsdale. The photo of *Hakea obliqua* ssp *obliqua* is from our garden here at Strathmerton.

I hope we continue to have reasonable rains in March so that the garden continues to thrive and that we can look forward to a lovely winter flowering period of *Hakeas* and other genera.

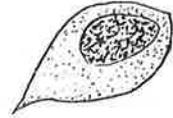
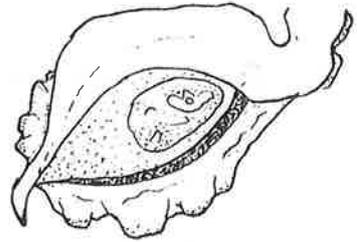
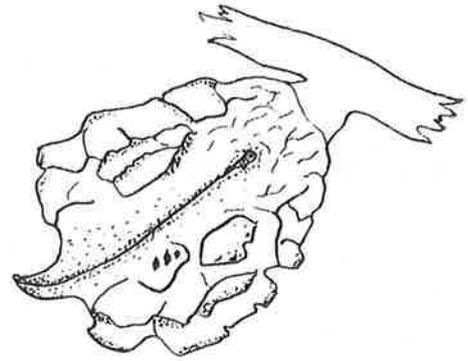
Regards, Paul.



HAKEA OBLIQUA SSP PARVIFLORA



HAKEA OBLIQUA SSP OBLIQUA





Hakea Asperma



Hakea Obliqua

