

AUSTRALIAN NATIVE PLANT SOCIETY AUSTRALIA

HAKEA STUDY GROUP NEWSLETTER NO. 51

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Leader: Paul Kennedy

PO Box 220

Strathmerton, Victoria, 3641

E mail hakeaholic@gmail.com

Tel. 03-58745339

Dear members.

I write to you with the sun blazing overhead. I thought the summer of 2008/2009 was the worst, but this has been much worse. Apart from 20mm of rain on December 15th. it has been extremely dry and hot. Day after day of above 30 degrees C has baked the ground dry and what soil moisture there is now long gone. For two weeks the temperatures stood around the 40 degree C mark and one day it actually reached 45 degrees C. Many of the Hakeas have greenish yellow leaves from the heat and not even a drop of water from the hose changes their colour. In the process I have lost two Hakea psilorrhyncha's, a Hakea laurina and a lasiocarpa. The Hakea olifolias are letting whole branches die in an effort to survive. Normally they would have their roots in moisture but the upper parts of the sandhill are now dry. The hakea salicifolias have most of their leaves burnt and would have died if not for some watering. Even so, they come from much higher rainfall areas along the NSW coast where temperatures are modified by the coastal or ranges breezes. They are not suited to the inland parts of Australia.

Vale John Clark.

John had a nursery near Meredith, south of Ballarat in Victoria. On a steep hill side he grew many Hakeas which thrived in the cold harsh winds that swept up the valley. In his nursery he produced many Hakeas for sale and encouraged people to grow them. On retirement John moved into Ballarat about eight years ago where he managed to grow a number of the smaller Hakeas due to limited space around the house. He was one of the early members of the Hakea Study group.

Hakea Yalgorup species named.

Looking through details of plants on the internet I noticed that the Hakea we knew as species Yalgorup has been now named as Hakea oligoneura. The name comes from oligo = few and neuron = nerve. The description says that the leaves are flat or rarely shallow concave 21 to 68mm long by 4.5 to 10mm wide. The leaves are alternate- spinose- dentate with 1 to 5 mucros per margin. Apex is acute, mucro 0.1 to 0.5 mm long, longitudinal veins 1 to 3 prominent above and below. Secondary venation obscure. Flowers white in spring. Fruit almost sessile, down curved, ovoid 11 to 18mm long and 5.5 to 11.5 mm wide, beaked, postulate. It comes from Yalgorup NP between Mandurah and Bunbury in WA. It grows on white brown sand on limestone ridges in association with open mallee shrub land.

It differs from Hakea anadenia by not having visible secondary venation and the leaf is also narrower. Also the fruit do not have postules on the surface. It is included in the Hakea undulata group. Refer to Jennifer Young's book on Hakeas of Western Australia for an excellent drawing of the species. It has grown very well here at Strathmerton on deep sand and set a lot of seed. It appreciates some summer watering and does not like extreme temperatures.

Visit from Peter Olde and Dr. Peter Weston.

I had mentioned some time ago about DNA testing being done on Hakeas and Grevilleas to determine their relationships in the Protaceae family. The initial testing brought up some interesting relationships and hence to carry out further studies using DNA they visited the Kennedy arboretum in early February to collect another 70 species of Hakea. It was interesting to watch Dr. Peter Weston from the Royal Botanic Gardens, Sydney taking samples, tagging and bagging them up.

I have included part of a talk given by Peter Olde to APS NSW members at the Ermington Community centre in November 2012.

"Research using the new tools such as DNA, genetic and genomic analysis has focused on groups of plants which are closely related to better understand the relationship between them. This has often lead to vigorous debate over name changes for well known genera such as Eucalyptus and corymbia, Banksia and Dryandra, Melaleuca and Callistemon and now Hakea and Grevillea.

Typically DNA data sets require sophisticated multi-factorial analysis with computerised algorithms before the results can be interpreted. Differences in analysis and interpretation can lead to very different conclusions from the same data. DNA results do not provide hard and fast answers or certainty of answers.

Recent molecular analysis of seven genes in Grevillea and Hakea indicates the likelihood that Hakea is nested in or evolved from Grevillea.

The Genus Grevillea may have to be split up or merged with Hakea. If it is merged then the name Grevillea disappears as Hakea was named first and has priority if the rules of taxonomy are applied strictly. An alternative interpretation sees Grevillea split and both existing genera retained, with new genera mainly for Western Australian species. One result for this latter approach has two genera in the Sydney region for grevilleas (one for the toothbrush type eg. G longifolia and one for the spider flowers eg. G sericea) and the Hakeas remaining in their own separate genus. We will have to wait and see how this plays out. Decisions on and acceptance of proposed name changes reflect scientific, cultural, historical and commercial values."

Welcome to new members.

We welcome Graeme and Sue Jones from near Sale in Victoria, Dan Ossedryser from Dee Why and Jim Ramson from Bateau Bay, NSW.

Swan Hill Hakea.

In the last newsletter I included photos of a Hakea growing in Barry Teague's garden at Swan Hill. Max Ewer says that he had grown one and considers it to be a hybrid with Hakea laurina as one of the parents.

Finance.

Balance forward 30 th . September 2012	\$2678-09
Income	
Subscriptions	35-00
Expenditure.	
Printing and postage of newsletter No. 50	76-00
Balance as of 1st. March 2013	\$2637-09

Members news.

Brendon Stahl has moved from Deans Marsh into Colac. Whilst he has left behind a magnificent garden of Hakeas and Banksias we hope he will soon fill up his new one acre block with many of the previous species he grew.

Kristine Gow has also left her lovely garden at Hilltop in NSW and shifted into Bowral. She tells me she has ripped out the exotics and planted natives, so I will be looking forward to seeing her new garden.

Hans Griesser has written to say in November *Hakea purpurea*, *pandanocarpa* (both ssp), *mitchellii* and *commutata* were in flower and *leucoptera* was in bud. He noted that his *Hakeas* tended to flower later due to being higher up in the Adelaide hills. *Hakea eyreana* grows very slowly, but these long lived plants seem to ensure their roots get well established first as they have to endure long periods of drought in the wild. The seeds he had received from the *Hakea* seed bank had germinated well and he treasured especially his one specimen of *Hakea acuminata*.

Hana Chvojka has had a white fungus appear on some of the seeds she has been germinating. Can members advise a fungicide to prevent this?

I have checked with members in areas where there have been devastating fires. Fortunately none of their properties were affected.

Our new member Jim Ransom has a garden on sandstone country north of Sydney. Even though he has built up beds he still has problems keeping plants alive due to the soils becoming water logged. After all the rain they have had up the coast most gardens would be very wet indeed. All I can recommend is digging paths into the ground and keep building beds up. The *Hakeas* from wet environments such as *actites* and *microcarpa* should do well. The Western Australian species of *olifolia* and *linearis* could also be tried as they like moisture, but the humidity might be too much for them.

APS Melton and Bacchus Marsh group plant sale.

In their newsletter the following *Hakeas* are listed for sale on the 18th. May at Bacchus Marsh oval. *Amplexicaulis*, *bucculenta*, *conchifolia*, *elliptica*, *eneabba*, *erinacea*, *flabellifolia*, *florida*, *francisiana*, *hookeriana*, *horrida*, *invaginata*, *laurina*, *lissocarpha*, *macreana*, *multilineata*, *neurophylla*, *obtus*, *oldfieldii*, *oligoneura*, *orthorrhyncha* ssp *filifolia*, *platysperma*, *pycnoneura*, *rigida*, *rostrata*, *smilacifolia*, *varia*, *verrucosa* and *victoria*.

Autumn has arrived and hopefully some cooler days. The long dry spell finally broke on the 28th. of February when 37mm of rain fell. If we have follow up rains the garden should pick up and the yellow green leaves return to green. Some of the *Hakeas* have already started to form flower buds, but it will be winter before they flower.

I will be going to the ANPSA conference and seminar in Coolumb in Queensland in August. I will take some display material with me and hope to supplement it with some local *Hakea* specimens as well. If you are planning to attend please let me know.

It is also time that we had another field day on *Hakeas*. Baidis McIntyre at Tamworth has a large collection and as we have a number of members in that region it would be nice to have a day together. I could also bring along the seed bank for members to access. I will see how events work out in the next couple of months and perhaps in the next newsletter we could announce a suitable date.

At the end of this newsletter are three photos of *Hakeas* taken from our garden. The first is *Hakea kippistiana* from inland Western Australia, the second *Hakea scoparia* ssp. *trycherica* with flowers at least three times a year after good rains, and the third *Hakea candolleana* which has pinkish flowers in spring. All are hardy plants for well drained soils and full sun light. I thank Hans Greisser for the formatting of these.

Until the June issue, I wish you all a happy time in your garden, and may your efforts in growing *Hakeas* be successful, regards, Paul.

Paul.



Hakea kippistiana



Hakea scoparia ssp. *trycherica*



Hakea candolleana