



Australian Native Plants Society (Australia) Inc.

ACACIA STUDY GROUP NEWSLETTER

Group Leader and Newsletter Editor
Bill Aitchison
13 Conos Court, Donvale, Vic 3111
Phone (03) 98723583

Seed Bank Curator
Esther Brueggemeier
28 Staton Cr, Westlake, Vic 3337
Phone 0403 078708

Email: acaciastudygroup@gmail.com

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article on page 3 of this Newsletter.

I recently had the pleasure of attending one of the APS Victoria quarterly weekend meetings, this one hosted by the Wangaratta District Group (in north east Victoria). It was good to catch up with a number of Acacia Study Group members on the weekend, and to visit the gardens of three of our members, **Helen and John Van Riet, Jan and Alan Hall and Alan Gibb** (all of which feature a range of Acacias). Unfortunately, Alan Gibb's garden was flooded three times last year and as a result he has constructed a levee bank to protect the garden from future flooding. Most of Alan's Acacias appear to have survived the flooding, with just a few exceptions (including, sadly, *A. leprosa* 'Scarlet Blaze' and *A. sporadica*).

Hopefully there will be a good attendance of Acacia Study Group members at the **ANPSA Biennial Conference** being held in Adelaide in early October (refer the note on page 9).

I have had a few queries as to whether there is anything further to report in relation to the **Government's proposal to ban certain plants** (including some Acacias) that can be used for drug purposes. However, I have heard nothing further on the issue and so have nothing to report. Maybe the Government is now doing the more thorough research that it perhaps should have done before releasing its previous Discussion Paper?

As for all Study Groups, **membership fees** fall due on 1 July each year – so it is now that time of year. It would be greatly appreciated if you could attend to this payment (or advise if you do not wish to renew your subscription). Details regarding membership fees and payment options are shown on page 10. Some members have paid some years in advance – if you wish to check on what date you are currently paid up to, please let me know.

From The Leader

Dear Members

It is probably not often that botany, and Acacias in particular, are the subject of international controversy, but that is the current situation with the name Acacia. At the **International Botanical Congress**, to be held in Melbourne in a few weeks time, there is to be a challenge to the 2005 decision whereby the name Acacia was retained for our Australian species, in lieu of the alternative *Racosperma*. Some further information is included in the

Our financial statement for the year to 30 June 2011 and an updated Seed List will be published in the next September newsletter.

Cheers
Bill Aitchison

Welcome

A special welcome to the following new members and subscribers to the Newsletter:

Peter Cox, Garfield, Vic
Len Hubbard, Chinchilla, Qld
Bob Lorensene, Mulgrave, Vic
Jennifer O'Brien, Merrijig, Vic
David Redfern, Wattle Glen, Vic

From Members and Readers

Esther Brueggemeier advises that her garden is to be open as part of Australia's Open Garden Scheme, on the weekend of 10 and 11 September 2011 (from 10am to 4pm each day, admission \$6). Esther's garden comprises almost (but not quite) exclusively wattles, and she advises that anything and everything to do with wattles from plants, art, food and more will be available for sale. The address is 28 Staton Cr, Westlake, Victoria.

Esther has also recently established a new web site as follows:
<http://esther-brueggemeier.artistwebsites.com>

In our previous Newsletter No. 112, **Jan Hall** asked for other people's experiences of small growing Acacias. **John Weatherstone** (Gunning, NSW) responded (2 April 2011) as follows:

"One of my favourites is *Acacia flexifolia*. I'm not sure how it handles heavy clay but my experience is that it is adaptable to a wide range of soil types and conditions. It will grow in full sun or moderate shade, is compact, stands clipping/pruning, flowers from mid winter through to spring, and is relatively long lived. (I have one in a paddock plantation which was planted in about 1983/4, is grazed periodically, and is still struggling on)."

John comments that he has long had a soft spot for Acacias and having had a farm based nursery, since 1975, supplying trees and shrubs for farming and environmental purposes, found it disappointing that so many people despised "wattles". One of his comments to such people has been that "Acacias are to revegetation, what clover is to pastures."

Apart from beef cattle, John's other main enterprise these days is tree and shrub seed and he is currently the seed broker for Greening Australia Capital Region, supplying or sourcing the seed for their direct seeding program.

Elsewhere in this Newsletter there are references to rain events that have occurred recently in some parts of Australia – but not all parts. **Elizabeth George** (Alexander Heights, WA) refers (13 April 2011) to the dry conditions that have been experienced in WA:

"After having flowered so beautifully last season my acacias (particularly *A. glaucoptera*) are now struggling having had 9mm of rain only since February and not much in sight."

Also from WA, **Jim Barrow** reports (14 June 2011) that one of his *A. splendens* plants has recently flowered for the first time, and makes a good show (Jim's two plants of *A. splendens* were previously referred to in ASG Newsletter No. 107, December 2009).



Acacia splendens

Photo: Jim Barrow

Vic Cherikoff advises that information on his natural antimicrobial (in which Acacia gum acts as an emulsifier) is available on his web site:
<http://www.cherikoff.net/cherikoff/herbal-active/natural-food-rinse.html>

Acacia Name Issue

Many Study Group members will be aware of the debate that has taken place in recent years regarding the application of the name *Acacia*. Significantly, at the International Botanical Congress (IBC) held in Vienna in 2005, a decision was taken whereby the type of *Acacia* was changed from an African species (*Acacia nilotica*) to an Australian one (*Acacia penninervis*). The consequence of this decision was that the majority of Australian wattles retained the botanical name *Acacia* (instead of changing to *Racosperma*) and some non-Australian species needed to be included in the genus *Vachellia*.

Regrettably, some people have not accepted the Vienna decision, and we understand that this decision will be challenged at the forthcoming IBC to be held in Melbourne this July, with the aim of having it reversed. This likely challenge was referred to by **Bruce Maslin** (Senior Principal Research Scientist, WA Herbarium) in his article in the June 2010 issue of *Australian Plants* that our Group compiled.

It is noted that anyone may register and attend the IBC. Provided you register for at least one day of the Congress, you are entitled to attend and vote at the Nomenclature Session. It is likely that the matter relating to Acacia will be raised on day one of the Nomenclature Session (18 July 2011). I am planning to register and attend, and would be very happy to have the company of any other Study Group members.

Recently, **Bruce Maslin** has prepared a further paper on the subject, for publication in the Newsletter of the Australian Systematic Botany Society. I have already emailed this paper to Study Group members who are on our email distribution list. For “non email” members, I have included a copy of the paper with this Newsletter. In this paper, Bruce expresses his view that the Vienna decision “was intrinsically sound, well-considered and unbiased, and was based on compelling argument that was comprehensively considered by the duly appointed Committees.” He also comments that in his view, “it would reflect badly on botanical nomenclature practices and procedures if now there was to be yet another change, and particularly one for which there is no sound taxonomic or nomenclatural justification.”

Since Bruce prepared this recent paper, we have received details of two compromise proposals that have been prepared for possible consideration at the Melbourne Congress.

The first of these has been put forward by **Dick Brummitt**, a botanist at the Royal Botanic Gardens, Kew (England) who was Secretary of the Committee for Spermatophyta which endorsed the 2005 proposal in relation to *Acacia*. In accordance with this proposal, the name *Acacia* would

apply for “general use” for all species, whereas for “specialist use”, the names used would be *Acacia* (*Racosperma*), *Acacia* (*Vachellia*) or *Acacia* (*Senegalia*) as appropriate. If indeed the meeting gets to a situation where it is necessary to decide whether to accept a compromise, I personally like this Brummitt solution.

The second compromise proposal has been put forward by **Nicholas J Turland**, Missouri Botanic Gardens. In accordance with this proposal, the generic name *Australacacia* would apply for most of our Australian species, and the name *Protoacacia* would apply for the African thorn trees and some others.

The *Acacia* name change issue is clearly a very contentious one that has evoked much debate and passionate argument both in Australia and overseas. I have included below some recent (edited) email correspondence which perhaps illustrate both this passion and the views held by three individuals (these have been reproduced with permission).

In an email of 24 May 2011, **Dick Brummitt** comments (with minor editorial changes by the writer) as follows:

*“... Unfortunately the Acacia issue has got completely out of control and I am not prepared to participate in mindless abuse, so I shall not be coming to Melbourne. Of course you may opt out of this miserable mess if you wish, but I hope not everyone in Australia will do so. Despite my career-long devotion to African botany, the case for applying the name Acacia to the Australian taxa seems to me overwhelming when I consider the criteria usually applied in nomenclature committees. If we are talking about nomenclatural stability, we can start with the number of species affected, where the hard figures are incontrovertible (1012 vs. c. 80). And then there are the ecological importance (half the African species are now referable to *Senegalia* and ‘Acacia woodland’ in Africa is now ambiguous), international industrial importance (multibillion dollar industry), local economic importance (one nurseryman told me he sold some 340 species for landscaping, horticulture etc), , social significance, and particularly familiarity of the name to general public in Australia but also regions such as tropical Asia where a million people grow Australian *Acacia* species), etc. From the start I knew I had to put aside my personal bias, but others in the African scene did not see it that way. I have been appalled and ashamed at some of the effusions from the African side.*

They seem to feel that they were cheated at Vienna, but that is not so. They just didn’t understand the system. The vote required to overthrow a committee decision was made perfectly clear before the vote took place, and they failed to achieve it. Later the Rapporteurs invited them in Taxon to submit a new proposal, but they refused to do so. Apparently, it seems to me, they knew they could not make anything like as good a case as Australia has. All the pro-Africa side’s arguments avoid the fundamental issues and

centre on procedural and personal matters. Their increasing tendency to personal invective just emphasises how poor their arguments for an African type are. We need to get away from the emotional stuff and bring the argument back to the essential issues, as noted above.

In an attempt to reach a conclusion acceptable to the African side as well as those in Australia, I published a new proposal in the December *Taxon* which would allow both sides to retain the name *Acacia* while still maintaining separate genera. A little nomenclatural slight of hand is needed, but this has been matched by a similar proposal by the Vice-Rapporteur (Nicholas Turland) in the June *Taxon* 2011 (with my comments alongside) (see Brummitt 2011). There is no reason why we cannot adopt my proposal. This should allow us to escape the acrimony which is so dividing the botanical world. But the reactions I have had from the African side have been negative and in some cases just pathetic personal invective. Oh well, if one has to either laugh or cry, I will try to laugh.

But, as I have said, I think it would be a pity if everyone in Australia just opts out. Australia has a very strong case for having one of its species as the type, and if the African side will not see sense and support the December compromise proposal, this is in danger of being reversed. The Australian side should be properly organised, as they were before the Vienna Congress when I received 250 messages in support of an Australian type. This time round I hope for the compromise position and an end to the divisive arguments. But Australia may need to secure institutional votes from major institutions to avoid the African bulldozer from crushing all resistance”.

In a response to Dick Brummitt’s email, **Bruce Maslin** referred first to his sadness that Dick would not be attending the IBC and stated:

“... it will be a sad loss not having access in Melbourne to your gigantic knowledge of the Code, your familiarity with the *Acacia* issue, your sound and logical reasoning and persuasive arguments.... I can only sincerely hope that there will be enough voices of reason at Melbourne to effectively articulate the case in support of the Vienna outcome.

The arguments this time round with respect to *Acacia* are different from those in 2005 and as a result I have not been able to participate very effectively in the ‘debate’: the issues this time are legalistic/procedural (of which I have little knowledge), rather than relating to the merits or otherwise of the Orchard/Maslin proposal (that latter battle was fought and won in 2005). I have nevertheless tried my best to do things that I think might contribute to a positive outcome in Melbourne, e.g. to encourage Australian Systematic Botany Society Members to attend the Nomenclature Session where their votes will undoubtedly be valuable.... I hope that Australians turn up to the Nomenclature Session...”

Christian Kull (Associate Professor, School of Geography and Environmental Science, Monash University, Melbourne) feels very strongly about the issue, and notes that his interest comes not from the botanical science behind it, but from an interest in symbolism, sentiment, national rivalry and geopolitics. He comments as follows:

“..Clearly the issue is indeed emotional. More importantly, I believe there is nothing wrong with that. Why shall we all hide behind supposed scientific neutrality and impartiality? If we believe historical, sociological, and anthropological studies of science, science has never really done so itself. This debate about national symbols and the way words roll off our tongue ('*racosperma...*') has caught the attention of taxonomists, botanists, scientists and the general public far beyond the few scientific *Acacia* specialists, and we care about it not because of nomenclatural rules or inconvenience to publishers of flora, but because we are human, we give meaning to names, symbols, flowers, nations. Let's call a spade a spade, and call *Acacia acacia*.”

References:

Brummitt, R.K. (2010) *Acacia*: a solution that should be acceptable to everybody *Taxon* 59(6) : 1925-1926

Brummitt, R.K. (2011) *Acacia*: do we want stability or total change ? *Taxon*, in press.

Maslin, B (2010) Wattle become of *Acacia*? An update *Australian Plants* 25: 253-256

Turland, N.J. (2011) A suggested compromise on the nomenclature of *Acacia Taxon*

Mary Tindale 1920 – 2011

We recently learned of the death of **Dr Mary Tindale** in Sydney on 31 March 2011, at the age of 90 years. For many years Mary worked at the Royal Botanic Gardens Sydney, where she was an authority on wattles, and also ferns. She was an author of various publications, and she prepared a large section of text for the *Acacia* volumes of *Flora of Australia*. In her work she described a significant number of *Acacia* species.

In 1980, Les Pedley named *Acacia tindaleae* in honour of her (*Austrobaileya* 1: 248) – in doing so he noted that “the species is named in honour of Dr Mary D Tindale of the New South Wales National Herbarium who has done much to clarify the taxonomy of *Acacia*, particularly the taxonomy of section *Botrycephalae*.”

More recently, in 2006, *Acacia tindaleae* was found to be a synonym of *Acacia conferta*. However, at the same time plants from NSW that had previously been considered as *A.*

tindaleae were found to be a distinct species, and these were named by Les Pedley as *Acacia mariae*. At the time, he noted (Austrobaileya 7(2): 348) in relation to *A. mariae* that:

“The species is named in honour of Dr Mary Tindale who has made significant contributions to the systematics of Australian acacias and ferns. It is regrettable that the name *Acacia tindaleae* has been delegated to the synonymy of *A. conferta*.”

Acacias and Sheep

In our previous Newsletter (No. 112), we included a report relating to the benefits of planting Acacias on a beef cattle farm.

We now have a report of the benefits of Acacias on a sheep farm. A sheep farmer in south east NSW, Mr Leon Garry, revegetated a whole paddock (about 30 hectares) in widely spaced alleys using direct seeding. He found the wattles grew quickly from seed and soon had a 30ha paddock with a variety of wattles growing in lines across the contour. Over time, Mr Garry observed his sheep would seek out the fallen wattle pods during the summer months before the autumn break refreshed his pastures. In one wet summer, 15 sheep in a mob grazing an adjacent pasture paddock died from Barber’s Pole worm. The sheep grazing amongst the wattles however seemed to have greater resistance to the parasites.



Acacias on Leon Garry’s property Photo: Graham Fifield

Graham Fifield, who is now a Project Manager with Greening Australia in the ACT, was involved with the revegetation project through his university honours degree. He was aware that wattle pods and leaves had tannins in them, and understood that these tannins had anthelmintic (anti-worming) properties. It seemed plausible then that Mr Garry’s wattle-fed sheep were less susceptible to worms than their counterparts grazing on pasture alone. This

prompted Graham to initiate some further research on the subject.

He collected a range of foliage and pod samples from the local wattles, and sent them to the lab of Dr Dean Revell, of CSIRO Enrich in WA. Dr Revell analysed the samples for their nutritive content and found the pods have a dry matter digestibility of 39-49%, and the foliage 44-52%.



Acacias as shelter Photo: Graham Fifield

The samples then went to Brisbane to Dr Andrew Kotze (CSIRO) who looked at their effect on a range of parasite life-stages in the lab. He confirmed that many of the species do in fact have anti-worming properties, and for the majority (but not all) it was due to tannins. In general, the pods were better at killing the worms than the foliage. From a farm management point of view, this is handy, as sheep will very quickly consume all the foliage within their reach and the pods fall at a time of year (mid to late summer) when there can be feed shortages and worm problems. At present though this work is only in the lab. Controlled field experiments will be necessary to determine the real potential for these plants to play a role in controlling worms.

The Acacia species that have been used in this work are species local to south east NSW, and are those capable of growing quickly, producing large amounts of biomass and being relatively long lived. The most useful species have been:

- *Acacia mearnsii* (black wattle)
- *Acacia dealbata* (silver wattle)
- *Acacia decurrens* (green wattle)
- *Acacia parramattensis* (Parramatta wattle)
- *Acacia baileyana* (Cootamundra wattle)
- *Acacia implexa* (Lightwood)
- *Acacia linearifolia* (Narrow leaf wattle)

Other than the direct benefits on sheep health, the planting or seeding of acacia trees provides other benefits, including the provision of shade and shelter for stock, helping to

rehabilitate previously saline land and fixing nitrogen in the soil.

The results of this work are exciting. Greening Australia is now using Mr Garry's design of widely spaced tree and shrub alleys in a program called Whole of Paddock Rehabilitation. Wattles, as well as local Box trees, are being direct seeded across degraded or denuded paddocks in south-east NSW for multiple production and conservation benefits.

Acknowledgment: My thanks to Graham Fifield for assistance in preparing this article.

Acacia Seedlings

I know that many Acacia Study Group members regularly propagate Acacias from seed. But how often do we look closely at our small seedlings, in particular the manner in which the first juvenile leaves develop in the seedlings?

Joe Miller and Cathy Miller (CSIRO Plant Industry, Centre for Australian National Biodiversity Research, Australian National Herbarium) have carried out some work where they have investigated seed mass and seedling leaf development in 287 taxa of *Acacia*, and the results of this research have been published in a recent paper in the Australian Journal of Botany. Some of these results are summarized below.

In relation to the first juvenile leaves, there are two development types most commonly displayed. The most common seedling development type displays a pinnate first leaf with an alternate bipinnate second leaf (referred to as pinnate : bipinnate). In the less common form, the first two leaves are pinnate and opposite each other (referred to as pinnate : pinnate). The following diagram, reproduced from the paper (with permission) illustrates these two forms. The paper lists all the species investigated and records which type of juvenile leaf development each displays.

The investigation also recorded the average seed mass for each species. Seed mass varied over 100-fold with an average mass of 17.9 (range 2.1 – 308) mg per seed. The lightest seed was *A. coolgardiensis* at 2.11mg per seed, and the heaviest was *A. dunnii* (at 308 mg per seed). The study then compared average seed mass with number of leaflet pairs on the first leaf, and this showed a significant positive correlation ie the larger seeds have more leaflet pairs on the first leaf.

It was also found that the pinnate : bipinnate seedlings have more first leaf leaflet pairs than the pinnate : pinnate form.

So, next time, you have some Acacia seedlings, you may want to have a closer look at the first leaves – they certainly vary in form between species.

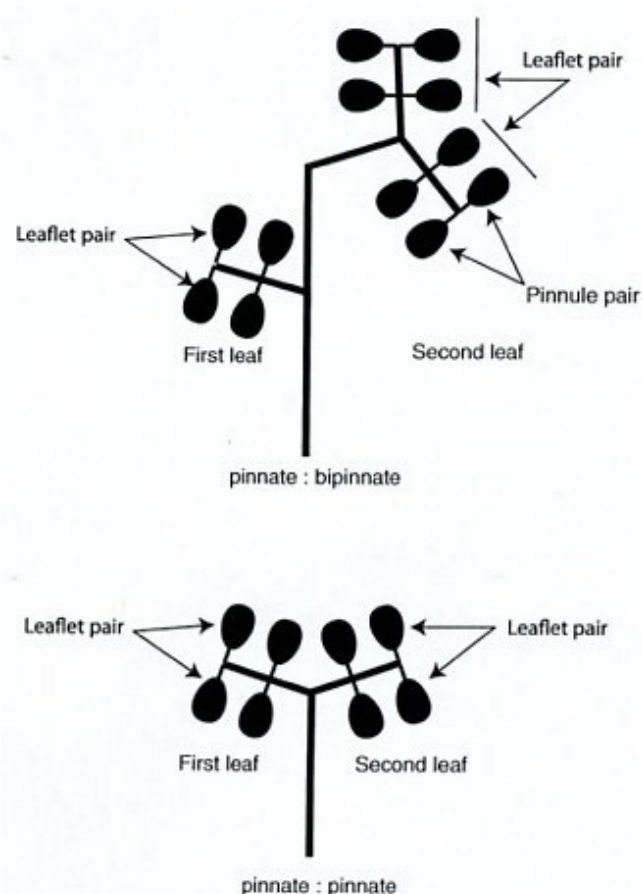


Fig. 1. Schematic diagram of the pinnate:pinnate form and the pinnate: bipinnate form. Characters measured are labelled.

The authors of this paper are planning to use the data that they have collected in further future analyses, in particular to understand evolutionary and ecological implications of seed mass and seedling leaf development.

Reference:

Miller JT, Miller C (2011) Acacia seedling morphology: phyllotaxy and its relationship to seed mass. Australian Journal of Botany 59, 185-196

Success with cuttings

Our Newsletter No. 100 (March 2008) included an article by Tracey Perrott on her experience in growing Acacias from cuttings. One of the plants referred to in that article was *A. leprosa* 'Scarlet Blaze', which Tracey categorized as being "Easy to Difficult".

Liesbeth Uijtewaal lives in the Netherlands and is a keen grower and propagator of Australian plants. She has kindly provided some information regarding her recent experience in growing this plant from cuttings.

Liesbeth has two plants, one of which is growing in her "bush" area, and one in a pot (although she is not absolutely

sure that the plant in the “bush” area is the true ‘Scarlet Blaze’). (Liesbeth’s “bush” area is situated in a greenhouse that had previously been converted from a cowshed).

In relation to the plant in the “bush”, she advises that she took fresh growth from the plant on 28 March and, within 17 days, all 12 cuttings had struck – a 100% success rate.

In relation to the plant in the pot, she did some cuttings somewhat later, and also had a high success rate. Liesbeth writes (2 June) as follows:

Dear Bill

It's been a while since you heard from me, sorry about that. It's been hot, dry and sunny here over the last couple of months and the plants season has started so the computer and I haven't seen much of each other lately. I promised to give you some more details re propagating 'Scarlet Blaze' so here we go.

A fair while ago I mentioned the successful propagation of 'SB' from the plant in my “bush” area but since I wasn't absolutely sure it's the true SB and since I was curious to know if I could repeat the trick I also propagated my true one (in a pot) a couple of weeks ago (May 18th). Lo and behold... lots of roots yesterday!! In 14 days only, like in the first attempt. Amazing!

Unfortunately the Scarlet Blaze in the bush is dying which is rather sad since it looked quite attractive in the spot it was growing. I haven't got a clue why it wasn't happy there anymore.

Anyway, the true Scarlet Blaze plant was pruned on March 23rd and potted on to a larger pot (it was flowering magnificently and I felt it deserved some more root space). On May 16th the new shoots seemed long and firm enough to propagate. That is, they were nice and firm without being woody. Normally I would have waited until a woodier stage but I've learned this doesn't work with wattles. Not with this one anyway.

I took 5 20-25 cm stems, wrapped them into moist kitchen toweling, put them into a plastic bag (an ordinary one, we don't have green veggie bags like you do) and left the lot in the fridge until I had the time to propagate them. This was two days later. I cut the soft tips off and cut the remaining material in half, just below the nodes, ending up with cuttings with 3-4 nodes each. I removed the lower 'leave(s)', the top 2 nodes + 'leaves' were kept above soil level. Importantly, I didn't cut the 'leaves' in half to reduce their surface like I would normally do with large leaves!

I removed a 1 cm long sliver of bark from the base of each cutting before dipping it into Rootex gel (similar to Clonex purple, containing 4g/l IBA whereas Clonex has 3g/l).

All 10 cuttings were squeezed into a small pot,

35x35x60mm, and put in a propagator with bottom heat under 12 hours/day tube light in a spare bedroom. The temperature was well above 20C there over the last couple of weeks. It probably was similar during my first attempt with cuttings from the “bush” plant. In my first attempt I made two pots with 6 cuttings each. Those had lived in the fridge for two days as well. I feel this helps in getting cuttings into a 'rooting mode'.

The propagator is rather basic, the heater in it makes sure the bottom temperature is some 3C higher than the room temperature. This is found to be important in striking cuttings.



Liesbeth's propagator in the “baby room” ('Scarlet Blaze' cuttings in about the middle)

My propagating mix is a commercially available mix consisting of sieved peat moss and sand. For my cuttings I add coarse sand, perlite and fine volcanic grit to improve drainage. I doubt though that the type of mix is crucial for success as long as it is well draining and kept moist.

*Groetjes
Liesbeth*



SB cuttings on 10 June, 3 weeks old, 6 cuttings before easing them apart which is not too difficult since the roots are straight and firm

Wattle Grow

In previous Newsletters we have referred to Wattle Grow Granular Inoculant, this being a Bradyrhizobium based inoculant that assists the growth of a range of acacia species by effectively forming nitrogen fixing nodules on the roots. On two occasions our Study Group purchased 15kg bags from Becker Underwood Pty Ltd, who manufacture and distribute it (refer Newsletters 98, 99, 100, 102 and 107).

Becker Underwood is now manufacturing a new peat based version of Wattle Grow. Essentially there are three strains of rhizobia used in the manufacture of Wattle Grow, and a full carton of Wattle Grow now contains 16 packets of each strain, totaling 48 packets in the carton. To use the peat based version, the most common method is to mix the three strains together with water and make into a slurry, then coat the seeds and sow.

It is noted that the 3 strains of rhizobia used in the peat based product are the same strains that were used in the granular version, so that the range of Acacia species that benefit from Wattle Grow is unchanged.

When our Study Group last considered the granular version of Wattle Grow, our main concerns probably related to cost and the short use by date. In 2008, the cost of a 15kg bag was about \$250 plus freight. The use by date was 3 months from the date of manufacture. Whilst these may not be major concerns in, for example, large scale direct seeding projects, they did limit the attraction of the product to smaller scale users.

We sought advice from Becker Underwood as to the price and shelf life of the peat product.

In relation to price, they advise that the minimum order is a mini carton which contains one packet of each strain, so a total of 3 packets. The cost for the mini carton is \$64 and freight (to Melbourne) of \$15. Including GST, the total would be \$86.90 (with a 3% credit card surcharge).

They also advise that the shelf life for the peat unopened is 12 months. However, once a packet is opened it needs to be used immediately. They advise that the way they make the product is that the sterilized peat is sealed in a plastic packet, and the broth of inoculant is then injected into the pack via a small needle. As such the moisture content of the peat is maintained and this is very important to the survival of the rhizobia. As such, when you open the packet the moisture will escape, the peat dry out and therefore the rhizobia will perish at a much faster rate.

Whilst the financial outlay required is now less than previously, it does seem that the requirement to use the product immediately on opening the packet will limit the attractiveness of the product to small scale users – but probably not be an issue in large projects.

A Trip to Western NSW

by James Martin, Kootingul, NSW

From 5-12 August last year Anthony O'Halloran (Tamworth group member and proprietor of Bilby Blooms nursery, Binnaway) conducted an outing to Gundabooka National Park and Ledknapper Nature Reserve in north-west NSW for APS members to conduct formal flora surveys.

Gundabooka NP is situated 50km south of Bourke, NSW which includes the banks of the Darling River to the north of the park, the open plains which in parts is dominated by mulga scrub (*A. aneura*) and the spectacular Gundabooka Range rising 495m above the plain at Mt Gundabooka.

On the peak is where the vulnerable *Acacia curranii* can be found with a population of approximately 150 mature plants recorded in 2005 in 2 small areas (unfortunately we could not find any). Even more unfortunate, I was told that there is little or no sign of regeneration which may be due to grazing from goats which we saw plenty of and/or altered fire regimes.

All up there are 21 different plant communities in the park and due to previous rains each one put on a great display with other genera such as Daisies, Peas, Ptilotus and 10 Eremophila species, 5 at Gundabooka and 5 at Ledknapper with all but 2 in flower. Wattles found at Gundabooka: *A. colletioides*, *A. tetragonophylla*, *A. victoriae*, *A. decora* and *A. aneura*.



Acacia decora

Photo James Martin

When our time at Gundabooka was coming to a close we all felt a bit disappointed as we felt that there was still so much more to see but Anthony confidently assured us that Ledknapper was just as good if not a bit better. Well, it didn't take us long to see that we were not going to be disappointed, even more so when we found out it is normally not open for the public.

Ledknapper Nature Reserve, situated 70km north east of Bourke was created in October 2002 and covers an area of 30,604 hectares. One of the main reasons for it being created (I think) is to protect the rare *Thryptomene hexandra* which is very common in the Reserve. The landscape is totally different compared to Gundabooka with extensive spinifex sand dunes dominated by Desert Pine (*Callitris verrucosa*), *Grevillea juncifolia*, *Calytrix longiflora* and *Acacia triptera*, while the clay pans are dominated by *Eremophilas*.



Acacia triptera

Photo James Martin

While we didn't see too many wattles in flower at Gundabooka it was certainly a different story out at Ledknapper, in particular *A. triptera* which put on a wonderful display with one never too far away grabbing at your clothes. Another wattle that really caught our eye was *A. decora* on the side of the road in the Reserve - this was smothered in flowers so we all had to stop and take a photo. Compared to our *A. decora* here in Tamworth, eastern NSW, the one out west has much broader phyllodes. Wattles found at Ledknapper: *A. deanei*, *A. decora*, *A. johnsonii*, *A. cambagei*, *A. triptera* and *A. maitlandii*.



Acacia maitlandii

Photo James Martin

This was my first trip out to north-west NSW and highly recommend to anyone who has the chance to go out and explore this beautiful part of Outback Australia.

If anyone would like to see more photos of the trip you can send me an email – jimboze@hotmail.com.

News From Arkaroola

In our previous Newsletter No. 112, we referred to the current threat to Arkaroola Wilderness Sanctuary as a result of uranium exploration and mining. More recently, there has been some positive news in relation to this issue.

In particular, on 8 June 2011 the Legislative Council in the SA Parliament carried a motion calling upon the SA Government to urgently guarantee permanent protection for the Sanctuary.

In addition, good rains over the last 18 months have been very favourable for the Sanctuary, and one of the beneficiaries has been the population of *Acacia araneosa* (Spidery Wattle) – we are told that knee-high spidery wattle recruits have made prodigious growth in the last year. Also, a new generation of *A. rivalis* (silver wattle) has appeared, shin-high recruits in places where the adults had vanished a decade ago but had left seed in the soil. New generations of *A. aneura* (mulga) are anticipated as a result of the optimum conditions for germination and establishment.

The Arkaroola web site is at www.arkaroola.com.au.

2011 ANPSA Biennial Conference

The next ANPSA Biennial Conference is being held in Adelaide, from 2nd – 7th October. It is planned that meetings of Study Groups be held at 7.30pm on Tuesday 4th October, and hopefully that will be a great opportunity for some Acacia Study Group members to catch up with each other. On the Wednesday evening, 5th October, a meeting of Study Group leaders is being held.

Each Study Group has been invited to put on a display at the Conference, and I have already advised the organisers that our Group would like to mount a display. Sue and I have already registered to attend the Conference, and I am happy to prepare some form of display, but would be very grateful for some assistance from any other ASG members. If you are going to be at the Conference, and could offer some help – for example, ideas on the form of our display or help in putting it together, I would be very happy to hear from you.

Acacia Workshop

This coming August an Acacia Workshop is being held in Alice Springs – Acacias for Human Food 20th Anniversary Workshop. The Acacia Study Group was invited to send a representative along, and I am pleased to advise that Esther Brueggemeier is going to attend as our representative. I have agreed with Esther that our Study Group finances are such that we can make a contribution of \$200 towards her expenses of attending the Workshop.

Esther will write a report on the Workshop for our Newsletter, and also hopes to be able to get some good photos while she is away (of Acacias, of course).

Seed Bank

An updated list of species held in our Study Group's Seed Bank was included in our September 2010 Newsletter 110. Requests for seed should be directed to Esther.

18 packets maximum in each order (negotiable). Limit of 3 orders per member per year. Please include \$2 in stamps to cover the cost of a padded post bag and postage.

Our thanks to Jan Simpson and Victoria Tanner for donations of seed to the Seed Bank. One of the species included in Victoria's donation is *Acacia subulata*. Victoria advises that she has a few trees that grow quickly to about 4-5m but are thin and tall, very graceful and flower whenever there is rain. They grow well in Victoria's Canberra garden and can withstand frosts and heat.

Study Group Membership

Acacia Study Group Membership fees fall due on 1 July each year, so if you have not already paid your membership for the coming year, it would be greatly appreciated if you would attend to this.

Membership fees for 2011/12 are unchanged from last year and are as follows:

\$7 (newsletter sent by email)

\$10 (hardcopy of newsletter posted in Australia)

\$20 (hardcopy of newsletter posted overseas)

If paying by cheque, please make your cheque in favour of ASGAP Acacia Study Group.

**Subscriptions may be sent to:
ASGAP Acacia Study Group
Bill Aitchison
13 Conos Court
Donvale, Victoria 3111**

Subscriptions may also be paid directly to our Account at the Bendigo Bank. Account details are:

**Account Name: ASGAP Acacia Study Group
BSB: 633-000
Account Number: 130786973**

If you pay directly to the Bank Account, please advise us by email (acaciastudygroup@gmail.com).