Australian Native Plants Society (Australia) Inc.

ACACIA STUDY GROUP NEWSLETTER

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From The Leader

Dear Members,

As advised by Esther in our December Newsletter, she has sadly had to resign as Leader of our Study Group, with the result that I have now taken over her role as Leader.

I would firstly like to acknowledge and thank Esther for her wonderful work as Study Group Leader since she assumed the role back in 2007, at a time when the Study Group was close to going into recess. Esther brought absolute enthusiasm to her position as Leader, and under her guidance the Group was reinvigorated. Unfortunately, family issues meant that she had to step down as Leader, although she is continuing as our Seed Bank Curator. I am also delighted that Esther is happy to still help with those difficult Acacia questions that we do tend to get from time to time. I must say that I am very aware that the Study Group has a number of very knowledgeable members, far more knowledgeable than I am, and I do know that these members are only too happy to share their knowledge and help whenever asked – I am very grateful to all of them for this.

Perhaps I should start by telling you a bit about myself. My wife Sue Guymer and I joined the Maroondah District Group of the Australian Plants Society back in 1987, and are still members of that Group. At that time we both had full time jobs as Actuaries, which probably limited our involvement with the Society, although we certainly enjoyed attending their monthly meetings. We did, however, gradually get more involved, joining the Committee, and for me this led to a period as President.

In 2006, the Maroondah Group organized and hosted the FJC Rogers Seminar on the subject, Knowing and Growing Australian Wattles. It was really my involvement in this Seminar that triggered my particular interest in Acacias – and it was following this Seminar that I took on the role of Newsletter Editor for the Study Group.

Since 2001, Sue and I have looked after the book sales function for APS Victoria, and we continue to do this. We do both like books – this probably explains why you may notice a number of book references in the Study Group Newsletter!

You will notice in this Newsletter references to two submissions that I have made recently in relation to Government proposals, one by the Commonwealth

Government that would have the effect of banning the commercial sale and propagation of some Acacia species, and one by the South Australian Government that may lead to uranium mining in an area where there are some significant Acacia species. I think it is appropriate for a Group such as ours to express an opinion on matters such as these that do have a potential impact on Acacias – but I am happy to receive any feedback from members in relation to this, whether good or bad!

I referred above to the family issues that Esther has recently had to give priority to. Unfortunately, this has meant that some seed requests from members have not been attended to promptly, and for this we extend our apologies to those who have been affected. We do thank you for your patience and understanding. By the time you receive this Newsletter, all outstanding orders for seed should have been processed – if you have an outstanding order, please let us know. And please do keep sending in your requests for seed.

As in the past, my intention is to produce 4 Newsletters a year, in March, June, September and December. The task of producing these Newsletters is made much easier with as much input from Study Group members as possible – so please think about whether there are any Acacia experiences, observations, thoughts etc that you would like to share with other Members.

Cheers,

Bill Aitchison

Welcome

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

Win Bennett, Greensborough, Vic
Jennie Epstein, Little River, Vic
Ivan Hammond, Wangaratta, Vic

From Members and Readers

Jeff Irons (Wirral, Engand) writes (24 December 2010) as follows:

In NL111 Wolf-Achim Roland wrote that acacias are not winter hardy in Germany. The late Thomas Ross had a garden near Frankfurt. In the foothills of the Taunus Mountains, it was a former vineyard and situated on a steep slope, which gave it good air and soil drainage. Though cut to the ground by -13.5C *A. obliquinervia* regrew and I saw it covered in blossom when about 3m high. *A. alpina* was also winter hardy though not very floriferous.

Another species winter hardy in Germany, *A. patakzekii*, has survived -17C in England. Both Thomas and I found that *Acacia obliquinervia* seeds need cold moist stratification before they will germinate. That is a good indicator of cold tolerance.

My own experience with acacias has been very odd and I wonder whether soil deficiencies are responsible. Acacias will grow and flower, surviving winter cold, then die. Species that have behaved in this way include *costiniana*, *kybeanensis*, *lucasii*, *obliquinervia* and *patakzekii*.

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Marion Simmons (Legana, Tas) writes (19 January 2011) as follows:

No. 111 is a very interesting newsletter as always. I agree with Alan Gray regarding the flowering of Acacias in Tasmania this year. They were truly spectacular, we have never seen such flowering on either *A. melanoxylon* or *A. leprosa* var *graveolens*. First of all *A. dealbata* was gold everywhere, it is very common in the Tamar area. Occasionally that species produces pale yellow flowers but mostly they seem to be a lovely bright yellow. Even an old *A. mearnsii* which we have in the garden was a mass of flowers for ages and earlier than usual as well.

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Jan Hall (Yarrawonga, Vic) writes (13 January 2011) as follows:

I enjoy the newsletters as Acacias are very important in our garden of 6 years. I relate to comments in N.L. Sept 2010 about them flowering early, late and altogether last year. This was a bonus for our Open Garden October 2 – 3 when they put on a great show with masses of daisies.

The best were:
Acacia spectabilis, nearby *A. lasiocarpa* and 3 selections of *A. pravissima* prostrate including Bushwalk Baby and 1m compact form. Predictably all plants of *A. pravissima* enjoyed the extra rainfall but I have placed them where they get runoff after rain to keep them going during the dry conditions.

A. denticulosa and *A. tindaleae* were spectacular but now looking uncertain due to wetter conditions since.
A. cardiophylla 'Gold Lace' was lovely on a low mound.
A. glaucoptera large upright form. Others were *A. restiacea*, *A. aspera*, and three *A. lineata* as a colourful hedge, *A. guinettii* continued on flowering, *A. maxwellii* trying to outgrow the rapidly spreading *A. fimbriata* dwarf with another trailing groundcover *A. howittii* prostrate.

Our local *A. acinacea* is a winner in the forest and on roadsides where the low suckering variety formed wide golden mounds. It's a good all rounder in the garden as well.

All forms of *A. verniciflua* were good with the prostrate one attracting attention.

A. continua and *A. chrysocephala* were good value as small plants. *A. cognata* 'Lime Magik', 'Green Mist', 'Bower Beauty' and the common form all put on fresh new foliage, not needing flowers to be attractive.

We have dozens of others as background and windbreaks on our 1ha property of northern (Victoria) plains. The responses to so much extra rain after 12 years of drought have been quite mixed. Some, probably most, have outgrown all expectations in the last few months, others have succumbed to "wet feet".

We have attempted to modify the heavy red clay to improve drainage to grow a wider range of species by using agricultural drains, mounds, hollows, gypsum, sand, compost etc etc. Then we try different species to see what will adapt to our climate.

It seems that so many of the smaller species, those that are interesting for gardens, are more demanding of perfect conditions. I would like to know of other members' experiences with the little wattles which are not so resentful of clay soils.

Some we have lost this way are:

A. cometes (*A. lachnophylla*), *A. merinthophora*, *A. curranii*, although another one in a dryer spot near trees is OK. A similar story with *A. phasmoides* and *A. imbricata*. Have also lost *A. mitchelliana*, *A. pulviniformis*, *A. gladiiformis*, while next to it *A. beckleri* survived a minor flood.

Some common species also did not adapt well to the wet, as well as some new plants, but overall the deep watering will be most beneficial.

Later Note:

I thoroughly enjoyed the Australian Plants edition on Acacias and also the issue on Fungi which helped explain the missing link with a lot of our garden soils. I've long suspected that our degraded farmland has lost its soil biota, therefore reducing the success of growing many different plants. It also explains why we have to keep fertilizing plants if we want them to perform well.

Good luck to those with more natural soil conditions where this fungal-bacterial activity is still present.

We utilize our indigenous species to colonise and revegetate, but as gardeners we seek interesting species for the garden.

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Further to the reference to *A. plicata* in NL 111, **Brendon Stahl (Deans Marsh, Vic)** writes (10 February 2011) as follows:

"I have been growing *Acacia plicata* for a number of years and have usually had to grow it from cuttings, as it did not set seed. Last year the plant did set seed. I have grown it in a number of positions, shade and full sun, and have lost my original plant, which was in shade."

In a subsequent note, Brendon referred to it as "a good small acacia with lovely foliage and flowers".

Proposed Government Ban on Acacias

The Commonwealth Government is proposing legislation that will expand the current list of prohibited plants that can be used for drug purposes, and has released a discussion paper on this. It is proposed that the list of prohibited plants will include any plant that contains DMT (dimethyltryptamine). A number of *Acacia* species contain DMT - I have seen a list of about 20 species, but I am also advised that many species have never been analysed and it is very likely that the list of species with DMT would be significantly more than 20.

Under the Government's proposal, any commercial propagation or sale of species containing DMT would constitute a criminal offence.

I know that many Study Group members are already aware of this issue, and that some have very strong views – words like "sheer insanity", "proposed Legislation is very poorly researched", "unwieldy", "strongly opposed to legislation", have been used by members in emails that I have received.

The Government's Discussion Paper is available on the web site of the Attorney-General's Department (www.ag.gov.au). It invited submissions from the public, and I lodged a submission on behalf of the Acacia Study Group (this is included on pages 9 and 10 of this Newsletter). The closing date for submissions was 11 March 2011, so it is now too late to lodge further submissions. However, I assume that if you have strong views regarding the Government proposal, it may be worthwhile contacting your local member or writing directly to the Attorney-General.

I would like to thank **Claude Culvenor** and **Dan Murphy** for their valuable input in the preparation of the Study Group submission, and for reviewing the submission.

I note that on 9 March, on the ABC's Radio National program, Australia Talks, the whole program was devoted to this issue. You can still listen to this program via the Program's web site:

http://www.abc.net.au/rn/australiatalks/stories/2011/3145864.htm

The web site also has over 200 comments lodged by listeners to the Program – which are almost all critical of the Government proposals.

Uranium Mining Threat at Arkaroola

Arkaroola Wilderness Sanctuary is located in the northern Flinders Ranges, about 600km north of Adelaide. It is an area of mountains, granite peaks, gorges and waterholes, and abounds in native flora and fauna. I know that a number of our Study Group members have in the past visited this area.

Unfortunately, there is currently a proposal by the South Australian Government to allow uranium exploration and mining in the Sanctuary, by a company called Marathon Resources. This clearly represents a serious threat to the native vegetation within the Sanctuary and its accompanying biota.

From an Acacia point of view, there are two particular areas of concern.

Firstly, *Acacia araneosa* (Spidery Wattle) is endemic to this area with a distribution of only about 8sq km along the border between Arkaroola and the Vulkathunha Gammon Ranges National Park. It is listed as vulnerable under the Commonwealth Environment Protection and Biodiversity Conservation Act (EPBC Act), and in fact under the Conservation Advice prepared for the species, mining was identified as one of the main potential threats to the species.

Secondly, there is a possibility that a new species of Acacia has recently been discovered. **Marg Sprigg** (Co-owner of the Sanctuary) advises (14 February 2011) as follows:

"In August last year we noted a small acacia (around 50cm high) in flower, with large very bright yellow ball flowers. The flowers are much larger than any other acacia we know on Arkaroola. The phyllodes were 10-12cm long and 0.75cm wide with a hook. It was thought at first it might be *A. rigida*, but it was decided this was unlikely. I have collected a few seeds, but the pods were damaged,

The plants are about to flower again, so we hope to get some samples to send off to the Herbarium for their advice, and some good photos. It is growing in a very small area right in the centre of Arkaroola. It has obviously been there for a very long time, but with infrequent good rains we were lucky to see it flowering, and lucky that it is going to do a follow up again so soon."

Marg advises that one of the particular concerns is that it appears that Marathon are seeking access into the heart of Arkaroola by means other than the Ridgetop Road. She notes that if they are permitted to put in their own access road, then there is dreadful concern for the future of the central region, with the likely ingress of weeds and other exotics (for over 40 years, they have controlled all access, and any vehicles entering the area have had to be cleaned for weed seeds before they are permitted to use the track).

On behalf of the Study Group, I have lodged submissions with the Premier and Leader of the Opposition, objecting to the mining proposal. If any Study Group member feels strongly about the issue, the relevant addresses are premier@sa.gov.au (The Hon M D Rann MP, Premier of SA, 200 Victoria Square, Adelaide, 5000), and liberal.opposition@sa.gov.au (The Hon Isobel Redmond MP, Leader of the Opposition, Parliament House, North Terrace, Adelaide, SA 5000).

Further information is available at www.savearkaroola.com.au.

RBG Cranbourne – Request for Seed

The Royal Botanic Gardens Cranbourne is situated south east of Melbourne, and features the award winning Australian Garden, set in the midst of about 363 hectares of native bushland. Those people who attended the ASGAP Biennial Conference in Geelong in 2009 will have visited this Garden on one of the Conference day trips. Of course, those of us who live in Melbourne are fortunate to be able to enjoy the Garden much more frequently.

Work is currently underway in relation to construction of Stage 2 of the Australian Garden. The additional nine hectares comprising Stage 2 is planned to extend the success of Stage 1, with the addition of new plantings, public amenities, landscapes, artworks, interpretive information and educational resources. Stage 2 is due to open in early 2012.

One of the exciting aspects of Stage 2 is that it is planned to expand the Garden's current Acacia collection. In this regard, the Acacia Study Group has been approached by the Gardens in relation to whether we can assist them in sourcing seed of certain species.

The species that they are looking for are the following:

A. alata var. *biglandulosa*, *A. baeuerlenii*, *A. carneorum*, *A. crispula*, *A. duriuscula*, *A. gordonii*, *A. inophloia*, *A. jacksonioides*, *A. melvillei*, *A. omalophylla*, *A. peuce* and *A. tarculensis*.

Our Study Group Seed Bank is able to help with seed of *A.*

melvillei and *A. omalophylla*. We also have seed of *A. peuce*, but this is dated 1970 and we doubt that it will still be viable (although we understand the Gardens are happy to have a go at this).

Although we have seed labelled as *A. alata*, we have no details as to which variety this is, and we also have doubts as to the accuracy of the labelling of some seed we have marked as *A. inophloia*.

If any Study Group member can assist with seed of any of the species listed above (except perhaps *A. melvillei* and *A. omalophylla*, where our Seed Bank can help), the RBG Cranbourne would be highly appreciative.

If you can assist, you could either advise Esther or me, or alternatively contact Di Clark, Nursery Co-ordinator, Royal Botanic Gardens Cranbourne. Di can be contacted by phone on (03) 5990 2202, by fax on (03) 5990 2250, or by email dianne.clark@rbg.vic.gov.au.

More information in relation to the Gardens is available at www.rbg.vic.gov.au/rbg-cranbourne.

Acacias and Allergies

The issue of wattles and allergies has been raised in our Newsletter on a number of occasions both recently and in the past. The following are a couple of recent additional references that support the argument that wattles are often unfairly maligned as being the cause of allergies.

In 2007, Reader's Digest Australia published a book, **Allergy and Asthma Relief**, which was compiled by a panel of experts. The following are two short extracts from the book:

"Many people suspect wattle to be a problem, but as with many Australian native plants, its pollen particles are very large and they cannot cross the lining of the nasal membrane easily enough to trigger an allergic reaction." (refer page 40)

"Gardens and Allergies: Up to 20% of allergy sufferers experience "spring sneezing" and blame plants for their woes. But often they're not to blame, or the wrong plant is held to be the culprit. Wattle, for instance, a plant most people believe to be top of the list when it comes to allergies, rarely causes any problems." (refer page 226)

I also recently came across a copy of a French book, **Le guide des allergies aux pollens**, (Guide to Pollen Allergies) written by a French allergist, Dr Pierrick Hordé (published in 2005). A section of this book sets out various steps to follow in order to create a low allergen garden. One of the recommendations is to plant insect pollinated plants, and Acacias are one of the recommended plants. My thanks to APS Victoria member **Charles Saffroy** for the following translation of this section from French to English:

"Here are a few suggestions to create a low allergen garden:
…
8. Favour entomophilous plants (which rely on insects to transport the pollen):
- Leguminous plants: Broom, False Acacia, Honey Locust, Japanese Sophora, Acacia …"

Acacias and Beef Cattle

I recently had an interesting conversation with **John Weatherstone**, who has a farm near Gunning, NSW, where he runs beef cattle.

John has made the observation that in an area of mixed plantings, his cattle seem to have taken to *Acacia penninervis*, eating the foliage and smaller stems. The cattle are rotationally grazed in this area and seem to handle it fairly well, and probably are healthier as a result of this additional diversity in their diet. *Acacia penninervis* does not occur naturally on the farm, but is found not too far away, so it is probably a species suited to growing in the local conditions.

Apart from the apparent beneficial impact on the cattle, John has also observed that the plantings have brought back native birds, and he also believes there are benefits from a salinity point of view.

Interestingly, with the recent rain, there has been plenty of green grass for the cattle, but John has observed that the cattle seem intent on grazing the trees and shrubs rather than the grass.

John does note that these are purely his observations and need to be qualified as such.

Acacias and Chooks

In NL98 (September 2007), NL99 (December 2007) and NL101 (June 2008) we included articles by **Ian Simons (Helidon, Qld)** setting out the results of early work that he had done on preferences of chooks for wattle seeds. Since then, Ian has done quite an extensive survey, and these results have been published in the journal Livestock Research for Rural Development (in Volume 21, No. 7, July 2009, and Volume 21, No. 10, October 2009).

These two papers can be accessed at the following:

http://www.lrrd.org/lrrd21/7/simo21105.htm
http://www.lrrd.org/lrrd21/10/simo21170.htm

Acacias and Wood Turning

Bob Lorensene is a member of the Australian Plants Society in Victoria and has a particular interest in wood turning.

Bob has successfully worked with a number of Acacia species, including the following:

A. acuminata (Raspberry Jam Wattle), *A. aulacocarpa*, *A. auriculiformis*, *A. argyrodendron* (Black Gidgee), *A. baileyana* (Cootamundra Wattle), *A. cambagiei* (Stinking Wattle), *A. catenulata* (Bendee), *A. crombiei*, *A. dealbata* (Silver Wattle), *A. harpophylla* (Brigalow), *A. implexa* (Hickory Wattle), *A. longifolia*, *A. melanoxylon* (Blackwood), *A. omalophylla* (Yarran), *A. oxycedrus*, *A. pendula*, *A. peuce*, *A. pycnantha* (Golden Wattle), *A. rhodoxylon*, *A. salicina* (Cooba, Willow), *A. sutherlandii* (Corkwood Wattle, Weeping Mimosa), *A. tephrina* (Boree), *A. ulicifolia*, *A. verticillata* and *A. victoriae*.

Bob has made a particular specialty of turning fungi, and has built up a large collection made from many different woods. The photo shown below is one of his works, made from *Acacia catenulata*.

Bob advises that there is one particular book that is very useful to wood turners using Australian plants. This is **Australian trees and shrubs – common and scientific names and toxic properties** (Second Edition 2006, published by the International Wood Collectors Society).

The introduction to the book notes that wood turners "live by common names", and hence the value of the listings in this book that link common names to scientific names, and vice versa. The book contains over 5,700 common names used to identify over 4,450 Australian species, subspecies and varieties. 996 species of Acacia are listed.

Separate listings provide details of toxic properties of various timbers – obviously important from a wood turner's point of view. Only 4 species of Acacia are listed here:

A. aneura (headache, vomiting, irritation, may contain a poison), *A. harpophylla* (dermatitis), *A. tetragonophylla* (wood splinters and thorns (phyllodes?) cause skin irritation, wood dust causes dermatitis) and *A. melanoxylon* (dermatitis and skin reactions, asthma).

Reference is also made to the toxic properties of one non-native species, *A. seyal* (dermatitis, coughing, irritates mucous membranes).

Bob advises that he is almost always looking for samples of wood that he can use in his work. If any Study Group member has any wood that may be suitable, Bob would love to hear from you. The samples used need not necessarily be large pieces. If you think you may be able to help Bob, his phone number is (03)95464225, address is 85 Lea Rd, Mulgrave 3170.

Acacia scirpifolia

In NL110 (September 2010), we referred to a query that we had received from Lloyd, a reader of our Newsletter in Geraldton, WA, regarding *Acacia scirpifolia* (a species local to that area). Lloyd has now sent to us a photograph (see below) of one of these plants that he has growing on his property. This plant is growing in extremely adverse conditions such as soil and wind exposure. It has never been watered in the 3 years since it appeared, but appears to be an incredibly hardy and robust plant perfect for the conditions it is in. The plant produced an abundance of yellow flowers last year at the beginning of summer (its first flowering), but did not appear to set any seed.

Lloyd advises that he managed to obtain some seed of this species from a local source. Based on his understanding that it is not an easy species to propagate, he sowed in pots with 2-4 seeds per hole, thinking a substantial number would fail. However, he found that he had a high success rate, and soon had about 100 seedlings come up.

However, despite the high rate of germination, all the seedlings seemed to stop growing soon after. Lloyd suspects that maybe he was giving the seedlings too much water, and that perhaps the water and/or the potting mix was contaminated. He has noticed that the seedlings that receive morning shade and afternoon sun are doing better (all those that receive morning sun and afternoon shade have now died) – so maybe they needed more heat than they were getting.

If any Study Group member has any thoughts as to why Lloyd was so successful with the germination of the seeds, but then had disappointing results with the seedlings, please let me know and I will pass on any comments to him.

I must admit that I have observed similar outcomes to Lloyd on a number of occasions (both with seeds I have sowed, and with a couple of other people as well) – where the seeds germinate readily, but then the seedlings struggle to do very much. What is the likely cause of this?

Acacia fimbriata

Our thanks to **Judy Cooney** for sending to us the photo below of a self-sown *Acacia fimbriata*. Judy advises that many of these have come up by themselves in her bush garden at Hungry Head on the Mid North Coast of NSW.

Books

Shrubs and Trees of the Great Victoria Desert
By Marlene Friebe and Bill Matheson
Published by The Friends of the Great Victoria Desert Parks 2006 (Reprinted 2008)

The Great Victoria Desert straddles the WA/SA border north of the Nullarbor Plain. The introduction to this book notes that the term "desert" is somewhat misleading as the region is heavily vegetated, in contrast to the Simpson Desert in north eastern SA. The Great Victoria Desert supports some 500 plant species, and this booklet describes 50 of the most common shrubs and trees in the South Australian portion.

Of the 50 species, there are 11 Acacias, being *A. aneura* var. *aneura*, *A. aneura* var. *conifera*, *A. burkittii*, *A. colletioides*, *A. gilesiana*, *A. kempeana*, *A. ligulata*, *A. murrayana*, *A. oswaldii*, *A. ramulosa* and *A. tetragonophylla*. For each species, the booklet provides a description of the plant, information on where it grows, how to identify it, similar species and common and aboriginal names. Each species is illustrated with colour photographs.

Perhaps the most interesting Acacia included in the booklet is *A. aneura* var. *conifera*, a shapely tree growing to a height of 10m with a conifer like appearance and common name of Christmas Tree Mulga. There is an isolated occurrence of this along the Anne Beadell Highway, but I am advised by **Bill Dowling** from the Friends Group that they will be visiting an unsurveyed area on their GVD Field Trip this year, so they may be able to extend the known range of this variety.

The success of this Field Guide is underlined by the fact that the first print run sold out, and a reprint was undertaken in 2008. For more information on the Friends Group, their web address is www.fgvd.org.au.

Mistletoes of Southern Australia
By David M Watson
Published by CSIRO 2011

Although this is a book about Mistletoes, Acacias are frequently mentioned in the book as they are common hosts of mistletoes. In Australia there are 91 species of Mistletoe, and this book includes descriptions of the 46 species found in southern Australia.

For each Mistletoe, information is provided in relation to the main hosts. Some Mistletoes have a very wide range of host species, whereas others are very specific as to their host with some being solely dependent on Acacias. The following are some examples:

Amyema fitzgeraldii – an exclusive parasite of Acacia species, common on *A. acuminata*
Amyema hilliana - recorded from six species of Acacia, especially *A. estrophiolata* and *A. victoriae*
Amyema maidenii - primarily associated with Acacia, especially *A. aneura* and *A. harpophylla*
Amyema nestor - recorded from 7 species of Acacia, locally common on *A. grasbyi*
Amyema preissii - dependent primarily on Acacia Species
Korthalsella leucothrix - known from only 4 species of Acacia (the suggested common name for this plant is the Acacia Jointed Mistletoe)
Lysiana murrayi - closely associated with Acacia species, especially *A. aneura*

Apart from the species descriptions, the book also includes chapters on biology, identification, ecology, cultural significance, and management. The book is highly readable and beautifully presented, being illustrated with 51 specially commissioned watercolours by artist Robyn Hurley and more than 130 colour photographs.

Australian Plants Acacia Issues

In recent years there have been two special issues of Australian Plants that have featured Acacias, being the September 2004 and the June 2010 issues. The Study Group has copies of both of these special issues. They are each $6, including postage in Australia. If you would like a copy of one or both of these special issues, please post a cheque (in favour of ASGAP Acacia Study Group) to Bill Aitchison. Alternatively you may make a deposit direct to our Bank Account (details shown below under Study Group Membership).

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 Brendon Stahl for a generous donation of seed to the Seed Bank.

Study Group Membership

Acacia Study Group membership for 2010/11 is as follows:
$7 (newsletter sent by email)
$10 (hardcopy of newsletter posted in Australia)
$20 (hardcopy of newsletter posted overseas)

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)

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NOTE: Annual membership fees for 2010/11 are now due, we would very much appreciate it if you could attend to this (or advise us if you do not wish to renew your membership).

From Max McDowall (Bulleen, Vic)

What acacia would you expect to find in a Helsinki cemetery?

Acacia tetragonophylla (Dead Finish)

Submission by ANPSA Acacia Study Group

Implementation of model drug, plant and precursor schedules for Commonwealth serious drug offences

The Acacia Study Group is a section of the Australian Native Plants Society (Australia) Inc, with members in all states of Australia and overseas. Our members have a wide range of interests and backgrounds, some with a professional involvement with acacias and others purely an amateur interest.

We wish to comment on the Government's Discussion Paper – Implementation of model schedules for Commonwealth serious drug offences, and in particular in relation to the expanded list of plant species under the schedule for controlled plants.

We note in particular that in accordance with the Proposed Model Schedule of Controlled Plants, it is specified that "any plant containing DMT" will be classified as a Controlled Plant. Our understanding is that the cultivation for a commercial purpose, the sale, or possession of plant material for commercial cultivation of any Controlled Plant will constitute a criminal offence.

Presence of DMT in *Acacia* species

The genus *Acacia* is the largest group of vascular plants in Australia, with over 1,000 species currently recognized (comprising about 1,350 taxa once subspecies and varieties are included).

The presence of DMT in *Acacia* species was first recognized in 1965 when the bark of *Acacia maidenii* was found to contain DMT[1]. Two years later, in 1967, the leaves of *Acacia phlebophylla* were found to yield about 0.3% of DMT[2].

In 1990, CSIRO published[3] the results of some joint work of the CSIRO Division of Organic Chemistry (later Division of Applied Organic Chemistry) and the Australian universities investigating Australian (and PNG) plants for new medicinal drugs. In this book, 16 Acacia species are listed as containing appreciable alkaloid content up to 1.3%. The alkaloids present were not identified because testing did not reveal medicinal value. Those species were *A. aneura*, *A. angusta*, *A. argentea* (now *A. leptostachya*), *A. complanata*, *A. drummondii*, *A. harpophylla*, *A. holosericea*, *A. kettlewelliae*, *A. leptocarpa*, *A. longissima*, *A. maidenii*, *A. neriifolia*, *A. obtusifolia*, *A. oxycedrus*, *A. podalyriifolia* and *A. polystachya*. Alkaloid was found in leaf and, in some, bark. In all, 125 *Acacia* species were tested qualitatively, some being positive for alkaloid, others negative.

In more recent years, DMT has been reported as occurring in a number of commonly cultivated *Acacia* species, including the following: *A. baileyana* (Cootamundra Wattle)[6], *A. colei*[4], *A. complanata*[5], *A. longifolia*[4], *A. melanoxylon* (Blackwood)[4], *A. podalyriifolia*[4], *A. provincialis* (formerly *A. retinodes*)[4] and *A. victoriae*[6]. Note that DMT has also been reported in a number of non-Australian species of *Acacia*, but we have not referred to them in this submission.

We are aware of one report[6] that "unpublished research has already established the presence of DMT in over 150 wattle species". We are unable to comment as to the validity of this statement.

We have, however, been advised by Dr C C J Culvenor (formerly Chief Research Scientist, CSIRO Division of Organic Chemistry) that, in his understanding, very few Australian species of *Acacia* would have been analysed for the presence of DMT, but if analyses were carried out, he would expect many additional species would test positive for DMT.

We believe that there is strong evidence that DMT is found in many species of *Acacia*, and if the proposals in the Government Discussion Paper are adopted in legislation, then these species will all be classified as Controlled Plants. We believe that it would be totally unworkable and inappropriate for legislation to proceed in the form proposed in the Discussion Paper, for the reasons set out below.

Reasons for Objecting to Proposals

(a) Acacias are very commonly and popularly grown as garden plants in Australia, in both public and private gardens. The effect of the Government proposal will be to restrict the ability of people to grow these favoured plants in their own gardens.

(b) As well as popular garden plants, Acacias are extremely common in native vegetation and are frequently planted or occur naturally on roadsides and are used in native revegetation programs. Acacias also serve an important ecological function in natural and planted vegetation as nitrogen fixing legumes that increase soil fertility (hence they are common in primary vegetation regrowth in disturbed ecosystems).

(c) Some of the *Acacia* species that will be impacted by the proposal are rare species. For example *A. phlebophylla* is a rare species known only from a limited area near Mt Buffalo in Victoria (and is listed under the Victorian Flora and Fauna Guarantee Act). The ongoing cultivation of this, and other similar rare species, is important as a means of assisting the future survival of these species. The Government proposals therefore threaten these conservation efforts, and impact detrimentally on the nation's biodiversity. It is also noted that if the cultivation of these plants is prohibited, then the remaining wild populations may well be placed under additional threat from individuals who may be seeking material for the manufacture of drugs.

(d) The proposals are unwieldy and too generalized. There is little hope that people will know which species contain DMT – and a consequence of this is that people will unknowingly be committing criminal offences. Whilst we are aware that Government spokespeople have denied that backyard plants will be banned or their growers prosecuted, we believe that it is unacceptable to ask people to rely on this reassurance – if in fact they are effectively committing a criminal offence.

The proposals are also unwieldy in that a number of species would be virtually impossible for non-experts to distinguish, especially when not in pod or flower.

(e) We believe that the proposals are also unlikely to achieve what the Government may be hoping to achieve. Some of the species that are reported as containing DMT are very common, and in some cases have become weed species in parts of Australia. For example, this would apply to *Acacia baileyana* and *A. longifolia*. It would be a simple matter for a person to obtain plant material from these weed infested areas – and hence the banning of garden plants would seem to be futile. We believe this proposal will draw unnecessary attention to the presence of DMT in many common plants and could in fact promote the spread of such information and increase the likelihood of inappropriate human use of such alkaloids.

(f) It is noted that some of the species reported as containing DMT are also very significant species for a variety of reasons. *Acacia* seed as a source of human food has been a subject of increasing interest and research in recent years[7]. *Acacia victoriae* is the most important species in the Australian bush food industry, whilst *Acacia colei* is showing promise as a source of human food in semi arid regions of the Sahel, West Africa. *Acacia victoriae* is also important as chemicals extracted from this plant have been shown to have anti-cancer properties, and current research may lead to these anti-cancer agents being used in future for the treatment of human skin cancer and other malignancies of the gut and glands. Rather than banning these plants in Australia, we should appreciate and value their unique qualities, and take action to protect and promote them.

(g) The wattle is Australia's national flower, and is proudly celebrated as part of our cultural heritage by Australians on Wattle Day and on other festive and sporting occasions. It also features on our coat of arms. The absurdity of the Government proposals, even in banning some species, is very evident when considered in the context of this national heritage.

In conclusion, many Australians grow *Acacia* species for many reasons, and the costs of these proposals will far outweigh the perceived benefits. The Government proposals will limit the ability of Australians to continue to enjoy nature as they have in the past, and in some cases will render them subject to criminal proceedings. We believe that this is a totally unacceptable outcome.

References:

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