Association of Societies for Growing Australian Plants

ACACIA STUDY GROUP NEWSLETTER

Group Leader
Esther Brueggemeier
28 Staton Cr, Westlake, Vic 3337
Phone 0411 148874
Email: wildaboutwattle@iprimus.com.au

Newsletter Editor
Bill Aitchison
13 Conos Court, Donvale, Vic 3111
Phone (03) 98723583
Email: aitchguy@netspace.net.au

No. 103 December 2008 ISSN 1035-4638

❄

Contents **Page**

From The Leader

Dear Members,

Where has this year gone? It seems I was only trimming all my wattles yesterday when after a spectacular flowering season we are again extremely busy (November and December) with tidying and trimming.

After missing good spring rains we have had a nice dump of rain in December (as it was last year). Down south, December seems to be developing into our second winter while bringing very welcome rain. Perhaps next year's flowering will be just as spectacular as the last. This would be ideal for the **ASGAP 2009 Conference** in September in Geelong. If any of you are thinking of coming please let me know what you would like our Study Group to do or discuss. As far as I am aware **Study Group Meetings** are planned for **Wednesday 30 September at 3:30pm – 4:30pm**.

For a quick summary, you could say this newsletter is 'White, Orange and Wavy'. Let me explain.

- In our Newsletter No. 100, our Feature Plant was *Acacia cognata* and many of its cultivars. Recently there has been an amazing **new cultivar** added to the market. ***Acacia cognata* 'Fettuccini'** with striking ***wavy*** foliage. I had to get my hands on these immediately, of course. They are now growing beautifully in my display garden. See **page 4** for a write up on this unusual wattle.

- Meanwhile, there has been an **incredible discovery** of a spectacular **'Orange Wattle'**. Neil Marriott has sent details and photos on **page 3**.

- Finally, our **Feature Plant** for this month is on the lovely **'White Wattle'**.

I hope you all enjoy the array of colour and foliage this month. School holidays are on soon and I will be going up to Brisbane with my husband and daughters to see family and friends. Looking forward to lazing around not working. (Visiting gardens is not considered work either).

Wishing everyone a happy, safe and relaxing holiday period.

Cheers
Esther Brueggemeier

Welcome

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

Don and Lorraine Mathews, Koraleigh, Vic
Trevor Edwards, Croydon, Vic
Barry Teague, Swan Hill, Vic

Feature Plant – *Acacia gilbertii*

by Esther Brueggemeier

Acacia gilbertii was named after John Gilbert (1812-1845) an English naturalist and explorer who visited Western Australia in 1839-40 and 1842-43 to collect birds for John Gould. (The Gould League of Australia was named after him.) *Acacia gilbertii* is found on gravelly soils in Jarrah forest (*Eucalyptus marginata*) and eucalypt woodland in south-western Western Australia.

This pretty little wattle, not much more than 1m high, could be dubbed the 'white wattle' since it has rather white flowers instead of the usual yellow.

***Acacia gilbertii* (all 3 photos taken at Melbourne's Maranoa Gardens)**

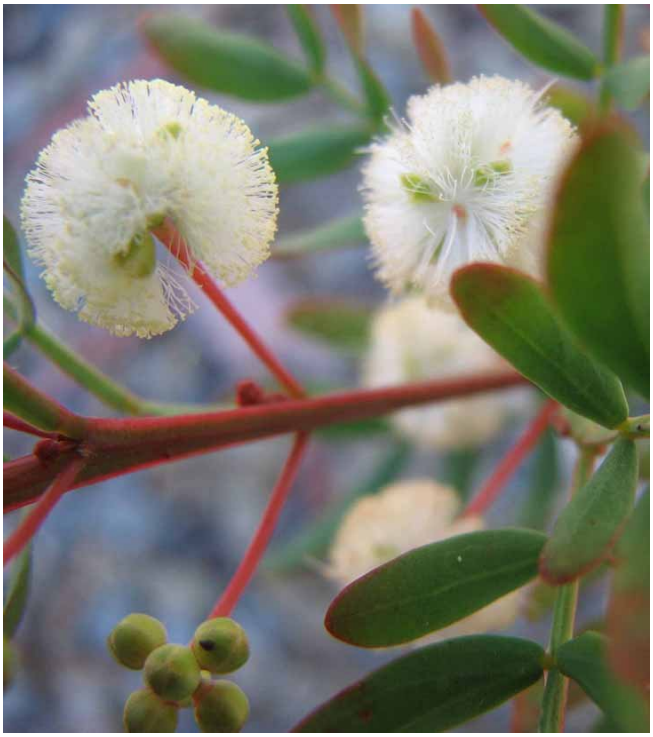
With delicate light green foliage, rich purple-reddish new growth, reddish stems and twisting red-brown pods, it makes for a fascinating display at all times of the year.

In the wild this dainty little bush has also been described as straggly but in cultivation it can be used quite effectively as a soft, informal border.

The beautiful 'white wattle' is also a pleasant choice for off season blossoms as it flowers from around late October to February.

Acacia gilbertii has not been used much in the horticultural world even though it is relatively drought tolerant and not too difficult to propagate. Like most Western Australian species, the 'white wattle' likes good drainage and prefers part-sun.

Hopefully in the future we will see more of this little wonder.



Acacia paradoxa 'Marmalade Hedge'

by Neil Marriott (Stawell, Vic)

When our property was burnt out in the terrible bushfires of the summer of 2006 Wendy and I were amazed at the survival of the wattles. Not one Black Wattle *Acacia mearnsii* or Lightwood *Ac implexa* was burnt and only a handful of the Hedge Wattles *Ac paradoxa* and Golden Wattles *Ac pycnantha* were burnt. Yet all around them the Eucalypts, particularly the rough-barked species were all burnt along with the majority of my extensive Grevillea collection and a lot of Eremophilas.

It was amazing watching the native bushland recover and burst into flower in the following spring, and we regularly went on walks around the bush on our property discovering new orchids and other plants erupting from the ashes. One morning Wendy came rushing back to the house to tell me she had discovered an orange flowered wattle! We went back down the hill and even from at least 50m away I could see the spectacular orange/marmalade colour of the plant. Everyone who has seen it says it is in fact far more spectacular than *Acacia* 'Scarlet Blaze'.

Amazingly, the plant is in fact a normal *Ac paradoxa* with yellow flowers, but the main branch is a sport with brilliant orange flowers. Several smaller branches from the base retain the normal yellow flowers.

Cuttings have been propagated from the orange plant and Bill Molyneux of Australflora Nurseries is mass producing it for release in the next year or two. Wendy has decided to call it 'Marmalade Hedge' as it is really more marmalade in colour than orange and *Acacia paradoxa* is commonly known as the Hedge Wattle. I have enclosed a couple of pictures of it for the newsletter.

***Acacia paradoxa* 'Marmalade Hedge'**

Acacia assimilis ssp. atroviridis

by Bill Aitchison

Some Study Group members will recall the Acacia Seminar held in Melbourne in August 2006. As part of the Seminar, a number of species of Acacia were propagated and sold to Seminar attendees.

One of these species was sold as *Acacia filifolia*. It has now come to our attention that the plant being sold was not *A. filifolia*, but in fact was *A. assimilis* ssp. *atroviridis*.

Our thanks to Maureen Schaumann and Judy Barker for observing that the flowers on the plant in question are on stalks from 5-13mm long, and are not sessile (as would be expected if it were *A. filifolia*). Thanks also to Max McDowall and Trevor Blake who both identified the plant as *A. assimilis* ssp. *atroviridis*.

Maureen and Judy note that, whatever the plant may be, it is an excellent garden plant. Maureen has it growing in her front garden (in suburban Melbourne), on a raised bed in full sun in well drained soil. While in flower earlier this year, it regularly drew cries of admiration from passers-by. It is open, with erect yellowish branches, long, filiform, faintly ribbed phyllodes with a little hook at the tip, and single globular flower heads on stalks 5-13mm long.

Maureen had previously tried to grow *Acacia filifolia* from seed, but had found she could not get it to germinate – this is why she bought two plants of what were labelled as *A. filifolia* at the Seminar.

Our understanding is that the seed used in growing the *A. assimilis* ssp. *atroviridis* for the Seminar came from the Acacia Study Group Seed Bank. It is therefore possible that if any Study Group member has sourced seed of "*A. filifolia*" from the Seed Bank, this may have also been incorrectly labelled seed.

Update on Cognata Cultivars
Acacia cognata 'Fettuccini'

by Esther Brueggemeier

This stunning new cultivar was bred by Phillip Dowling of Native Plant Wholesalers in South Australia, which is also the home of *Acacia cognata* 'Limelight' and 'Bower Beauty'. His success story with this species continues, this time in an unusual wavy fashion to produce *Acacia cognata* 'Fettuccini'. This plant is now being managed by Plants Management Australia and is PBR protected. (see www.pma.com.au)

***Acacia cognata* 'Fettuccini'**

As with the original cultivars, 'Fettuccini' is a fresh lime green colour with coppery tinted new growth. It has a tight mounded, wavy weeping habit giving it a decorative rippled appearance. With a height of 75cm and spread of up to 1.2m it can easily be tucked into the smallest gardens and make an impressive display.

Of course, 'Fettuccini' is easy to grow in full sun or part shade becoming drought and frost tolerant once established. It grows well in most well drained soil types and makes a wonderfully versatile plant to use in native, oriental or tropical style gardens either mass planted or as tub specimens.

I would like to thank Phillip Dowling of NPW and Chris Sargent of PMA for the information and pictures that were provided for the article and also the support in putting the article together.

***Acacia cognata* 'Fettuccini'**

Using Acacia Gum

by Esther Beaton, Pearl Beach NSW ©

When you hear the words ‘gum tree’ you naturally think of eucalyptus trees, those grand old lords of the bush and countryside with their drooping grey-green leaves and peeling bark. But the blood-red ‘gum’ that oozes out from damaged bark is not really a gum, but ’kino’ because it is astringent, rich in tannins and not easily soluble in water.

Wattle bark is also rich in tannin, but the gum that oozes out from between the cracks is chewy and sweet, a true gum. Wattles belong to the world-wide genus of plants called Acacia. It is an unusually huge genus with over 1000 species. About 800 of them are native to Australia. The gum from wattles is generally pale amber, soft and either tasteless or slightly sweet. It is certainly edible (although not the darker gums which have absorbed too much of the unpleasantly-flavoured tannin from the bark) and was a dependable food for many aboriginal people. As it dries in the air it hardens but can be dissolved again in water. Aborigines would sometimes collect huge amounts,

compressing the pieces into head-sized balls, and stowing them for future needs.

The golden, flavourless gum has many more uses than just food. Its stickiness is useful as a gel in cosmetics, to add gloss and finish to paints or to painted surfaces, as a binder for all sorts of compounds, in fact, any way that you would use 'gum arabic.'

Gum arabic comes from an acacia tree, *Acacia senegal*, also commonly called 'mimosa tree' which occurs across North Africa, Arabia and India. Some consider the gum from this tree the best in the world, while Pliny, an ancient travel writer, said that the gum from *Acacia nilotica*, an Egyptian tree, was the best.

Gum arabic has been in use for at least 4000 years. The Egyptians used the gum and other parts of the acacia tree for a great range of remedies from swollen legs to eye complaints.

I set out to buy gum arabic from an art supplier, only to find it costing $5 for 100 grams so I was stimulated to try our local gums instead. For personal and home purposes, a little wattle gum is not hard to find and it is so satisfying to get in touch with our own natural heritage.

I think we're letting thousands of years of human endeavour go to waste if we don't transfer that knowledge to our own gum-producing trees, our native wattles. The early botanists, collectors and settlers recognised the potential value in acacia gum and they did experiment with it a bit, recommending the gum from the Silver Wattle, *Acacia decurrens*, to be as fine as gum arabic. But probably the manufacture of the traditional gum arabic was so well entrenched overseas that our small local industry couldn't compete with it, or produce it in enough quantity. Whatever the reason, production stopped.

Silver wattles are common all over the NSW tablelands. I found some on a Sunday drive to the village of Wollombi. Because it was well away from traffic, it was safe to collect. I made sure to take only a small amount, not damaging the tree in any way and to leave plenty for the ants which were feasting on it.

A teaspoon-sized lump of gum will dissolve in about 1/2 cup of water but be patient; it takes a few days, depending on how dry the gum is. My few bits were full of small pieces of bark, but I didn't bother to strain it out since I wasn't planning to eat or drink it. Here is a recipe for house-purifying incense:

•about 1 tablespoon of dried, ground leaves from broad-leaved paperbark (*Melaleuca quinquenervia*) or other tea tree with strongly-scented leaves

•about 1 tablespoon of fine sawdust from cedarwood
(I used a coffee grinder to prepare the above two items)

•about 2 teaspoons of gum solution (made as above)

Add just enough gum solution to bind the herbs together. Shape them into little pellets or cones. Let them dry out thoroughly, about 2-3 days.

To use: place on a ceramic or other fire-proof dish. Light with a match, just as you would normal incense. As it smoulders, take it throughout the house, especially into unused rooms and dark corners. If the smell is too strong, you can perfume the air afterwards with another incense that you can make at home using items from your kitchen:

•about 1 tablespoon each of cinnamon bark, whole cloves and whole star anise

•about 2 tsp of gum solution, just enough to bind the whole together

Once more, shape into pellets and allow to dry thoroughly. Place on fire-proof dish, or onto self-igniting charcoal, light the charcoal with a match and allow the incense to smoulder.

Australian Acacias as Weeds in Africa

Nicky Zanen (Vic) draws attention to the July 2008 Newsletter of the Southern African Plant Invaders Atlas, which focuses on Acacias and in particular refers to 18 species of Australian acacia that are listed as being naturalized or casual alien species in Southern Africa. The species listed are:

A. adunca, *A. baileyana*, *A. cyclops*, *A. cultriformis*, *A. dealbata*, *A. decurrens*, *A. elata*, *A. fimbriata*, *A. implexa*, *A. longifolia*, *A. mearnsii*, *A. melanoxylon*, *A. paradoxa*, *A. podalyriifolia*, *A. pycnantha*, *A. saligna*, *A. stricta*, *A. viscidula*

The Newsletter includes a key for identification of these species as well as a number of illustrations accompanying the key.

It also refers to the introduction of the gall-forming rust fungus *Uromycladium tepperianum* as a means of biological control of *A. saligna* (this was referred to in ASG Newsletter No. 80, August 2001).

The SAPIA Newsletter can be accessed at
www.dwaf.gov.za/wfw/Newsletters/SAPIA/SAPIANewsNo8Jul08.pdf

Seed Set in Acacia

In our previous Newsletter No. 102, we referred to the interesting observation that some single trees produce seed that is apparently viable when most acacias are supposed to be mainly outcrossers.

We asked whether Study Group members who are growing single plants of particular species (where the same species is not being grown elsewhere in their local area) could advise whether these particular plants set seed. We only received reports of observations from 3 people, and would welcome further reports. The reports that we did receive are summarized in the following table. We also received some interesting comments from Jeff Irons and these comments are shown below.

Species grown as single plant	Seed Set after flowering?
aphylla	Yes
ashbyae	No
assimilis	Yes
beckleri	Yes
brachybotrya	Yes
caerulescens	No
chinchillensis	No
delphina	No
extremer	Yes
flagelliformis	Yes
gemina	No
hubbardiana	Yes
merinthophora	Yes
phasmoides	Yes
restiacea	No
terminalis	No
tetragonophylla	No
triptera *	No
triptera *	Yes
sp aff verniciflua	Yes
williamsonii	Yes

* 2 separate reports received

Note: Whether a plant sets seed will depend on a number of factors including, for example, the maturity of the plant. Esther Brueggemeier points out that her *Acacia dealbata* flowered for the first time when it was 3 years old but there were absolutely no seeds set. This year it flowered beautifully and also set lots of seed.

Acacia seed viability

by Jeff Irons (UK)

Several years ago "Australian Plants" included an article about the viability of *Eucalyptus* seeds. It stated that studies on single street trees had shown that seeds collected from a single tree had only 40% of the viability of seeds collected from trees that had outcrossed. By the third generation the seed was effectively unviable. A possible confirmation of this finding can be found in Britain. In the 1960's it was believed that *E. gunnii* was the most cold tolerant eucalypt and gardeners were recommended to grow the Whittinghame form. The form is never mentioned today. I think it likely that Whittinghame was propagated from seed and that the viability decreased progressively as a new generation was harvested. Other genera and species behave similarly. One that comes to mind is *Acer griseum*. Single plants are known to give seed with about 5% viability. A botanic garden where I work as a volunteer has a tree that I studied over 10 years, by collecting 100 seeds and observing viability. This was done by cutting them in half. Healthy seeds have a creamy colour and are plump. Unviable seed is brown and perhaps even empty. This unusual tree averaged 38% viable seed. Clearly there is variation in the proportion of viable seed produced by a single specimen. This is additional to any variation between seed lots.

It seems likely that acacias too will produce seed from a single specimen, but that plants grown from such seeds will have reduced vigour and themselves produce seed with an even lower viability. The fact that a single specimen produces seed does not reduce the desirability of growing seed with a number of parents. I collect seeds only when there are at least two parent plants and there is no other species of the same genus growing nearby and flowering at the same time. My only exception to this would be apomictic species.

Frost Tolerance of Acacias

by Jeff irons (UK)

In the September 2008 Newsletter Liesbeth Uitjewaal wrote about the frost tolerance of her *A. dealbata* ssp. *subalpina*, which was grown from seed obtained from Britain's Australasian Plant Society.

My limited observations of Australian plants in the wild have been confined to the country's eastern margin. As far as acacias go they have been that in these wet areas acacias grow mainly in forest and on its margins. In Tasmania *A. dealbata* ssp. *dealbata* was seen growing in forest under taller trees. In NSW and the ACT ssp. *subalpina* also grew in forest. The same went for *A. verniciflua* (not *vernicosa*, as given in the Newsletter). In all my garden plantings I have tried to approach the wild conditions by giving some shelter. This is a practice very different from that of most British gardeners, who put plants in the open, then complain that they are not winter hardy. Liesbeth too has her *A. dealbata* ssp. *subalpina* in the open. Its parents were growing in forest at Rushes Bay near Jindabyne, at an altitude of around 800m.

Liesbeth wrote of seeing *A. pravissima* growing in English gardens. My guess is that those plants were in the parts of

the country that experience the warmest winters. A recent article in a British gardening magazine stated that the species grows at Ness Botanic Gardens (near me) but did not mention that it is in an unheated conservatory! Ness is in a part of England with reputably favourable winters, yet even with the warmer winters now experienced *A. pravissima* will not grow outdoors.

The late Thomas Ross grew several acacias in his garden, which was in the foothills of Germany's Taunus mountains. One of them was *A. obliquinervia.* Three seedlings from the same batch of seed were put in my garden and died in their first winter outdoors. The reasons are fairly plain. Thomas Ross' garden is on the site of a former vineyard. It slopes steeply and consequently the stony soil is very well drained. My garden has silty soil and is wet in winter. Germany has warmer summers than Britain, so that wood is well ripened when the frosts kick in. The weather then stays cold until spring. In Britain acacias continue growing until December, after which they experience a succession of alternating cold and warm spells. This reduces cold tolerance greatly.

Plants have three methods of coping with cold. My experience is that few Australian plants have other than the first, a simple concentration of sugars in the cells. I suggest that while *A. dealbata* ssp. *subalpina* has the second method *A. pravissima* has only the first, and that is why it was killed in the Dutch winter. Many plants appear to survive low temperatures in Australia because the low temperature lasts for only a short time, not long enough for it to freeze the plant cells. In contrast, in northern Europe the temperature stays low and plant cells freeze, so rupturing their walls.

The enclosed picture (shown on the left) of my only *A. dealbata* ssp. *subalpina* is interesting for another reason. It was in my front garden for three years, having been selected because it was the smallest in a batch of seedlings. When moved to the back garden it was around 30cm high. Two years later, even though put in a bed raised about 30cm above the general soil level it is about 4.5m high! The reason is the greater water availability in the back garden, which is probably 0.5m lower than the front. Another interesting characteristic is the way the tree leans to the right, i.e. towards the sun. In contrast the *A. melanoxylon* behind it slopes to the left, i.e away from the dominant wind even though that is away from the sun.

Study Group Membership

Acacia Study Group membership for 2008/09 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 Leader
Esther Brueggemeier
28 Staton Crescent
Westlake, Victoria 3337

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 Esther by email (wildaboutwattle@iprimus.com.au)

Seed Bank

An updated list of species held in our Study Group's Seed Bank was included in Newsletter No. 102 (September 2008). 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.