



Australian Native Plants Society (Australia) Inc.

ACACIA STUDY GROUP NEWSLETTER

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No. 116 March 2012

ISSN 1035-4638



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from the first 100 Newsletters of the Acacia Study Group. This booklet has been advertised through our web page on the [worldwidewattle](http://worldwidewattle.com) website (at a cost of \$6.75 posted in Australia). We do still get occasional orders for this booklet from visitors to the website. As we recently sold the last copy of the booklet, I have prepared a few more copies so that we can still fill any future orders that we receive.

On page 4 of this Newsletter, there is an article by **Dr Gordon Bradbury** on Blackwood Research and Commercial Development. In that article Dr Bradbury refers to an article that Marion Simmons wrote for our Study Group Newsletter on Blackwood back in 1984. I mention this because I have been trying to produce electronic versions of our old Newsletters, albeit rather slowly. However, if anyone would like to read the 1984 Newsletter that included Marion's article on Blackwood, let me know and I can email to you a pdf version of the Newsletter (the content is the same as in the original Newsletter, but the formatting is different). If you are not on email but would like to read Marion's article, let me know and I can post you a copy. I am not sure where the task of producing these electronic versions leads to, but it seems to me that there is a lot of great information in our old Newsletters that at the moment is not easily accessible (note that Newsletters since 2001 are available on the [worldwidewattle](http://worldwidewattle.com) website).

I am delighted that in this Newsletter we have had articles contributed by a number of people - including **Neil Marriott, Terry Fewtrell, Tony Cavanagh, Tony Rinaudo** and **Gordon Bradbury**. Thanks to all of you. I would love to receive more contributions for our future newsletters – if you could put a few words together on an Acacia topic of interest to you, that would be great and I am sure of interest to others.

Bill Aitchison

From The Leader

Dear Members

Our exciting news for this Newsletter is the good response in relation to expressions of interest for a Study Group Field Trip in the Northern Tablelands of NSW, and as a result we have decided that it will proceed. Details are included on page 2 of this Newsletter. At the moment our best guess is that we may have somewhere between 10 and 20 attendees. So far, we have had expressions of interest from New South Wales, Victoria and the ACT. It would be good to have a few more participants, especially from the other states.

Some years ago **Bruce Clark**, who was then leader of the Acacia Study Group, prepared a small booklet called **Wattles are Golden**, this being a collection of highlights

Welcome

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

Eraldo Boracchia, San Jose, Costa Rica
Nathan Burke, Moss Vale, NSW
Peter Cunningham, Tarrington, Vic
Stevan Milentijevic, Fitzroy North, Vic

Nathan is an ecology student at the University of New South Wales and is looking forward to participating in “our vibrant community”.

Peter has been working on edible semi-arid Australian acacias in Niger, West Africa, since 2000 and maintains a strong working interest in the research and development of multi-purpose acacias for semi-arid and temperate regions.

Study Group Field Trip

As advised in our previous Newsletter, we are planning to hold a Study Group Field Trip in the Northern Tablelands of NSW, with **John Nevin** as Leader.

We can now advise that we have had sufficient interest in the proposed Trip, and have decided that it will proceed. It will be held in August this year, on the weekend of 18 and 19 August. The weekend will be based in Glen Innes (100km north of Armidale on the New England Highway).

The tentative program for the weekend is as follows:

Friday night, 17 August: Meet at the New England Motor Lodge, Glen Innes, for dinner and a briefing on the weekend. In addition, Maria Hitchcock will speak about Wattle Day and her new (2nd edition) book on wattles, which is being released in September and launched in Canberra on Wattle Day.

Saturday, 18 August: From Glen Innes, head north to Torrington, Bolivia Hill and the Queensland border looking at wattles. Return to Glen Innes for a get together after the evening meal to look at the wattles we have seen and to identify them using the Lucid Wattle Key.

Sunday, 19 August: Head out to Gibraltar Range National Park and Washpool National Park and look at the different wattles there. Return to Glen Innes.

Monday, 20 August: For anyone who wishes to stay on, John is happy to organize another day. We could look at the western slopes wattles by heading to Inverell, and then back to Armidale via Bundarra Rd. We could then have a look at the gorge wattles and Waterfall Way to Ebor and New England National Park, Cathedral Rocks National Park and

Dangars Falls and Wollombi Falls, as several species only grow along that sector.

For anyone who wishes to extend their trip even longer, the local APS Armidale Group has its monthly meeting on Tuesday night, 21 August (where Bill Aitchison will be speaking about wattles). Any visitors would be most welcome at this meeting.

A number of Study Group members have already registered interest in attending the Field Trip. If you have not yet registered interest but are interested in attending, please let us know (contact either John Nevin (jrnevin@nsw.chariot.net.au, or phone (02) 67752128) or Bill Aitchison (acaciastudygroup@gmail.com, or phone (03) 98723583).

For those who have registered interest, it would help us in our planning for the weekend if you could advise us once you have made a decision as to whether or not you are going to join in the weekend.

If you would like information on accommodation options in Glen Innes, we have some details that we can provide to you.

John Nevin has put a lot of work into preparing the program for the weekend, and I am sure that we are very grateful to him for this work and his considerable expertise.

Note: As advised previously, to take part in the weekend you must be a financial member of the Australian Plants Society (or equivalent body in your state).

From Members and Readers

Pat Barry (Bracken Ridge, Qld) comments (17 January 2012) as follows: “Thanks for such an informative newsletter; still very difficult to spread the Acacia message in the Brisbane area. Even the “Million Trees” program (under our local Council) provide very few acacias for planting out. A few limited species available at local Bunnings - hard to find a good commercial nursery these days. Still we keep trying!”

Judy Barker (East Hawthorn, Vic) writes (15 February 2012): Although I don't get into the garden as much as I would wish, one particular species is giving us great value, *Acacia assimilis* ssp. *atroviridis*. We have 3 plants separated by about 3m from each other. It is a hot, dry spot but they are all flowering again, very shortly after their last flowering. I will keep a note of when they flower after this effort dies down. The foliage is very elegant, and they appear to revel in robust constitutions.”

In our Newsletter No. 112 (March 2011), we referred to the Government's proposal to ban the commercial sale or propagation of a number of Acacia species that contain DMT (dimethyltryptamine). Since then, the issue seems to have gone very silent, perhaps because the Government has realized how absurd and poorly researched their proposal was. The following is a note received (11 March 2012) from **Belinda Casos, Honorary Secretary of the SGAP Ipswich Branch**:

"Our branch was amazed when we heard of this ridiculous proposal, and after it was discussed at one of our meetings, our Chairman contacted our local Federal Member - Shayne Neumann. Although it took a little while to get a reply as he was on overseas holidays we did get a response. In his response he said "that the intention of the Attorney General's Department is to capture commercial criminal activities, e.g. propagation of plants for the production of drugs" and that "nurseries growing wattles for revegetation activities etc will be excluded."

The purpose of this email was just to advise you that we supported you and your study group in fighting this ban."

Use of Wattle Seed in Niger

by Tony Rinaudo, World Vision Australia, East Burwood, Vic

How many people use wattle seed in Niger, or other African countries and what is an estimated size of production?

It is difficult to estimate the number of people eating wattle seed in Niger, and the number of people and amount of seed eaten varies from year to year depending on the harvest and availability of seed. One 2006 survey revealed that people in more than 20 villages were utilizing the seed, however, much promotion work continued beyond 2006 and from the start of acacia promotion activities, many more than 20 villages have been exposed. In terms of numbers, when seed is available, possibly 500 - 1000 people eat acacia seed in Niger.

The main species planted is *Acacia colei*. Unfortunately seed yield of even this hardy species is rainfall dependant. Below around 350 mm of rainfall seed yields drop to next to nothing. This limitation has restricted adoption of acacias as a crop plant and in local diets. Even so, in the villages where acacia is eaten, enthusiasm is high. People have composed songs and dances on the benefits of acacias and a mythology on the good attributes of acacia foods has been developed.

In terms of harvest, this is very variable. Total amount of seed sold to SIM from 2004 - 2009 varied from around 700 kgs - 2100 kgs, apart from what was consumed directly and what was not harvested. One could conservatively estimate that during those years total seed harvest was in the order of 1,000 kgs to 4,000 kgs per year. I conducted a survey in

2007 which revealed that while the men were selling 90% of the acacia seed they collected and keeping 10% for home consumption, women were selling around 50% and keeping 50% for household consumption. This is very significant because Niger is one of the poorest countries in the world and the project deliberately priced acacia seed above the price of millet. I believe the women valued the higher nutritional value and taste of the acacias and despite their poverty were willing to forego potential revenue. Numerous people surveyed commented that acacia adds bulk to their food, that after eating acacia food people felt satiated for a long time and that adding acacia to their staple millet diet made their millet last longer (they did not need to put as much millet in the meal).□□

We are not aware of Australian acacias being consumed by people in any other African country. In Ethiopia, the government and various NGOs have planted tens of thousands of hectares of *Acacia saligna* over the last four decades - yet there is virtually no knowledge of their edibility by rural populations. World Vision is working with the Tigray Agricultural Research station and a group of 'farmer-researchers' to:

- establish the safety of the seed for consumption and develop locally acceptable and nutritious recipes□
- determine best management practices□
- determine the best provenances of saligna and test other likely candidates for the varied agro-ecological zones of Tigray.

We feel strongly that by laying a good foundation and by working with all stakeholders from the outset, once acacias are cleared for human consumption by the authorities, there will be strong uptake in Ethiopia.

Note: The above article was prepared by Tony Rinaudo in response to questions raised in our previous Newsletter regarding the use of wattle seed.

Promotion of National Wattle Day

by Terry Fewtrell

In his *From the Leader* column in the last issue of the Newsletter, Bill drew attention to comments raised at the recent Study Group meeting in Adelaide concerning 'the lack of publicity given to Wattle Day' and called for suggestions to remedying this.

The Wattle Day Association Inc., (WDA) as a member of the Acacia Study Group, is very keen to raise the issue of the promotion of National Wattle Day (1 September), as this is part of our key objectives; along with the promotion of wattle as our national floral emblem and a unifying symbol for all Australians.

In recent years the WDA has pursued a number of initiatives aimed at raising the profile of Wattle and Wattle Day. Principal among these has been the on-going development of our website (www.wattleday.asn.au). This site has lots of information about Wattle and its special day, its social history and links to a range of related sites that include the efforts of others around the country, who support and advocate for Wattle Day.

As the Association is based in Canberra it takes advantage of the access to Parliament, government and other national associations to encourage awareness of Wattle Day and its great meaning for all Australians. Certainly when the Parliament is sitting on Wattle Day, WDA members deliver sprigs of wattle to Parliament House and a large number of Members and Senators wear them for the day.

We have other key events, including arranging for school children to present a basket of wattle to the Governor-General, a Citizenship ceremony and a dinner. However we are increasingly focussing on reaching out to Australians around the country for the promotion and celebration of Wattle Day. We have a number of members and friends of the Association spread around Australia who celebrate Wattle Day in different ways. We encourage and support these efforts through our website.

The Association is working towards a major national program to promote Wattle Day through an alliance with bushfire brigades. In 2010, WDA members designed and hand-made 1,000 Wattle Day badges which were sold to the community, principally by members of the ACT Volunteer Bushfire Brigades Association, at bushfire information street stalls, held in the lead up to Wattle Day. This resulted in over \$6,000 being raised for the Brigades to use on training and special equipment. A similar but larger effort in 2011 raised in excess of \$7,000.

The project has been outstanding on all levels: raising awareness of National Wattle Day and Wattle's role as Australia's national floral emblem and symbol of national unity; building community by creating opportunities for raising awareness of bushfire preparedness; and generating significant funds for a good community cause. The project links two iconic Australian entities, Wattle and Volunteer Bushfire Brigades, who are local community heroes. The project is marketed under the banner: 'Support an Aussie Icon and help an Aussie Mate'. We are currently talking with a large corporate organisation about sponsorship to extend the project nationally.

We welcome any suggestions that Newsletter readers may have to help promote the cause of Wattle and Wattle Day. We would suggest that people who are interested could check out our website, become members of the Association or just tell us about how they celebrate Wattle Day. We will promote those ideas on the website and encourage others to join in what is a great Australian tradition and one that

many are increasingly finding has more meaning than that provided by Australia Day.

For anyone who does not have ready internet access, they can contact the WDA at Box 1485 P. O. Dickson ACT 2602. You can also contact us via email at president@wattleday.asn.au. We would love to hear your ideas and join our energies with all those who love the wattle.

Terry Fewtrell
President
Wattle Day Association Inc.

Blackwood Research & Commercial Development

by Dr. Gordon Bradbury
gordonjbradbury@gmail.com

Research

In 2010 I completed a PhD at the University of Tasmania, School of Plant Science, on the genetic and environmental variation in blackwood (*Acacia melanoxylon*) survival, growth, form and wood properties. This was undertaken with the grateful support of the Australian Research Council and six Tasmanian forest industry companies.

The research was based on six blackwood genetics trials established between 1988 and 2000, located around Tasmania. The trials generally had low numbers of mostly Tasmanian blackwood families, and were smaller than ideal for a proper genetics study, but were the best available.

Growth and form traits were measured on all trees in these trials with over 7000 blackwoods measured across 155 Tasmanian families. Blackwood is renowned for having poor apical dominance, an important trait if you want to grow tall, straight trees for sawlogs, so understanding the variation in stem form and branching traits is important. Also selecting trees with good growth rates or at least avoiding trees with poor growth rates is important. The results showed that both growth and form are under at least partial genetic control, with trees sourced from lower altitudes having generally better growth rates than those from high altitudes.

The objective for the wood properties study was to identify the largest sample of families common across a range of trials, which resulted in 16 families being selected across three trials. This is an *extremely* small sample for genetic analysis. The three trials were all planted in 1989. Of the three trials one (Meunna) was a pure blackwood trial planted on a good site with high rainfall and deep fertile kraznozom soils on tertiary basalt. This site once supported tall wet eucalypt forest with blackwood understorey. The

other two trials (one pure, the other with a eucalypt nurse crop) were planted together on a drier site (Virginstow) with poor soils and lower rainfall, that once supported dry eucalypt forest with no blackwood in the understorey.



Dr Gordon Bradbury taking a stem core from another Blackwood (it doesn't kill the tree)

From these 16 families a total of 607 stem cores were taken. Properties measured were: sapwood width, heartwood width, percentage heartwood, heartwood and sapwood colour, basic density, green density and green moisture content. Stem diameter (dbh) and time of flight (TOF) were also measured on the trees from which stem cores were taken. Time of Flight is an indirect way of measuring stem stiffness. Wood stiffness is an important property in tonewoods, with blackwood being increasingly recognised as a sustainable tonewood. Multiple heartwood colour measurements were made across the stem cores to allow within- as well as between-tree heartwood colour variation to be measured.

Significant genetic (G), environmental (E) and (GxE) interaction affects were found in many wood properties. Significant genetic affects were found in stem diameter, time of flight, sapwood width, percentage heartwood, green density, basic density, green moisture content, heartwood colour and within-tree heartwood colour variation. Significant environmental affects were found in green density, basic density, green moisture content, heartwood colour and within-tree heartwood colour variation.

Significant interaction affects (the genetic expression varies according to the environmental conditions) were found for time of flight, green density, basic density, heartwood colour and within-tree heartwood colour variation.

The two pure blackwood trials (Meunna and Virginstow) produced almost identical green density and mean heartwood colour, while mean heartwood colour was significantly lighter in the trial with the nurse crop. Meunna had significantly lower basic density than the two Virginstow trials. Green moisture content differed significantly between all three trials. Within-tree heartwood colour variation was significantly less at Meunna, while the two trials at Virginstow had similar wide within-tree colour variation. There was significant random between tree heartwood colour variation.

Only a few weak significant correlations were found between diameter growth and wood properties, so increasing growth rates in plantations should have only minor affects on important wood properties.

Conclusions

While many wood properties in blackwood show wide natural variation this study showed there is some genetic control to these properties. This study showed that good site selection is important to produce high quality wood, with important wood properties largely unaffected by growth rate. Growing quality blackwood timber in intensively managed plantations appears to be a very real possibility, provided good genetic material, good sites and good management are employed.

Post-1984 Update

In 1984 Marion Simmons wrote an article for this newsletter about the commercial development of blackwood in Tasmania (*The Prized Timber Tree*). Since 1984 significant progress has been made in the sustainable management of blackwood on State forest in Tasmania. However the strategy of opposing critics, and continued politicization, has seen the forest industry reduced to a shadow of what it was in 1984. Areas of State forest are now designated for the production of blackwood, and the silviculture of native blackwood is now pretty well understood. Research has been done, mostly on native blackwood silviculture, but also some on genetics. While growing blackwood has been promoted to Tasmanian farmers for the past 40 years, almost no progress has been achieved. This contrasts with the situation in New Zealand and Chile, where farmers have taken to growing blackwood in plantations with considerable success. In a few years time it is likely that New Zealand will be producing more blackwood timber than we do in Australia, while our local blackwood industry is likely to disappear. Within this context of failed policy and management I am trying to get funding and support to establish a Tasmanian Blackwood Growers Cooperative. See www.blackwoodgrowers.com.au for details.

Threat to Wattles from Overseas Plant Pests

by Bill Aitchison

Most Study Group members will no doubt be aware of the unfolding myrtle rust catastrophe in Australia. This deadly plant killing disease, which has now infested NSW, Queensland and most recently Victoria, came to Australia from South America where it had jumped hosts and attacked Australian eucalypts growing there.

Myrtle rust does not attack wattles. However, the Invasive Species Council has recently warned that new diseases attacking Australian wattles grown in plantations in Africa and Asia will reach our shores and could cause serious damage to our wattles that will have no immunity to these pathogens.

Two examples of these “new encounter” pathogens are:

- (a) *Ceratocystis albifundus* is a fungus native to Africa. This fungus is found on a wide range of native woody plants in South Africa, including trees in more than seven genera. Infections on native South African trees rarely result in disease. However, the fungus has undergone a host shift and is now found in plantations of *Acacia mearnsii*, where it causes rapid wilt and death. It also infects *A. decurrens*.
- (b) In South Sumatra, a new and serious canker wilt disease has recently appeared on *Acacia mangium*. This disease is caused by *Ceratocystis acaciavora*. It is understood that this is a fungus native to Indonesia, and that it has also undergone a host shift to infect *A. mangium*.

The Invasive Species Council first warned about these overseas threats to our wattles in June last year, and more recently has issued a media release regarding these threats. Mr John DeJose, CEO, is concerned that, despite having adequate warning in the form of the unfolding myrtle rust catastrophe, the Australian Government is still yet to develop contingency plans for other looming threats to our natural environment, such as these threats to our wattles.

Mr DeJose comments as follows:

“There should be a comprehensive and transparent review of the nation’s response to the myrtle rust incursion. Australia needs to learn from what went wrong with myrtle rust, to consider new threats, make plans to counter them and, most importantly, to fully resource and implement the plans when the need arises.”

“Profound changes to the plant mix in an ecosystem can cause big problems for a range of animal species that depend on them for survival”.

“Importantly, Australia’s wattles are nitrogen-fixers, a primary source of scarce nitrogen in our ancient, depleted soils. No one knows how severely exotic pathogens might disrupt this essential ecosystem service provided by wattles.”

Note: The Invasive Species Council campaigns for better laws and policies to protect the Australian environment from weeds, feral animals and exotic pathogens. Formed in 2002, it was the first environment group in the world to focus solely on exotic species. It is a non-profit organization and works with other groups on policy and legal reform, campaigning for action on a range of high priority pests. Further information on the Council’s work can be found at its website, www.invasives.org.au.

References:

Feral Herald No 27, June 2011 (Newsletter of the Invasive Species Council)
Invasive Species Council Media Release, 12 February 2012
Wingfield, M.J., Roux, J. and Wingfield, B.D. (2011) Insect pests and pathogens of Australian acacias grown as non-natives – an experiment in biogeography with far-reaching consequences. *Diversity and Distributions*, 17, 968-977.

What can be done about the threat to wattles?

Mr DeJose has provided some suggestions as to what could usefully be done to tackle this threat to Australian wattles. He writes as follows:

“The practice of exporting our plants overseas has set us up for the Myrtle Rust disaster and there are likely more pathogens than those reported that’ll be heading our way in future. Wattles may be the next cab off the rank - at least they are now known to be at risk - so it would be great for your Society and members individually to write to their local federal and state politicians and ask them to find out for you if DAFF is doing any research or planning on this specific pathway.

Ministers Burke and Ludwig [environment and agriculture] should also get letters demanding the government do more for the environment in regards to biosecurity. The current system aims at economic impacts and leaves the environment to virtually fend for itself. We have a proposal to create an agency like the industry-led Plant Health Australia and Animal Health Australia to work on prevention and control of environmental pests. If your members could call for such a separate environmental biosecurity authority, that would be a great help!”

Mistletoes on Wattles at ‘Panrock Ridge’, Stawell

by Neil Marriott

Having recently purchased a copy of ‘Mistletoes of Southern Australia’ by David Watson from Bill and Sue at a recent APS meeting, I suggested to Bill that I would be interested in writing an article about our Mistletoes at ‘Panrock Ridge’. As a botanist I have always had an interest in the Mistletoes, and as a mad birder I have always loved the way they attract a host of birds and other wildlife to them. On our property we feel very lucky to have six Mistletoe species growing naturally.

The vast majority of our Mistletoes grow on the very many Black Wattles *Acacia mearnsii* all over our property in the Black Range and I must admit that I do not know if it is just coincidence, but, it is almost always the ones that are covered in Mistletoe that live the longest, averaging 15-20 years, often longer. This certainly warrants further investigation.

We have thousands of Lightwood *Acacia implexa*, many Hedge Wattle *Ac paradoxo* and Golden Wattle *Ac pycnantha* growing naturally all over the property and curiously we have never seen Mistletoe on any of these!! Has anyone else ever seen Mistletoe on these species? Interestingly, as we have introduced new *Acacia* species into our gardens, many have become hosts to Mistletoe. For example, around the house we have a couple of beautiful specimens growing on our *Acacia merinthophora*, while in our gardens *Acacia boormannii*, *Acacia decora* and *Acacia sp* ‘Mt Typo’ do have Mistletoe on them –often several species in the one plant. We also have Myrtle Wattle *A. myrtifolia*, Gold Dust Wattle *A. acinacea*, Blackwood *A. melanoxylon*, Mitchell’s Wattle *A. mitchellii* and Prickly Moses *A. verticillata* growing naturally on the property and they rarely have Mistletoes as well, so is there a common factor that makes Black Wattle so prone?? This is another interesting area of research –why are some species of *Acacia* prone to Mistletoe predation while other species appear entirely free of them??

Despite their often despised status, Mistletoe is in fact an extremely valuable and beautiful native plant, adding considerably to the biodiversity of any region where it occurs. They are what is known as ‘hemi-parasites’ which means that, although they grow on and depend on another plant, they do have chlorophyll in their leaves and therefore produce their own sugars. In fact, under good conditions all they take from their host is moisture and small amounts of minerals. All their energy is produced from their own carbohydrate production.

As a result, a shrub or tree in healthy conditions can readily tolerate a number of Mistletoes growing on it. On the other hand, a tree under stress and suffering due to some external pressures such as root damage, impeded drainage, soil compaction etc has a weakened immune system and may

therefore suffer from excessive Mistletoe infestation; the same as it can from insect attack, fungal disease or borers. In fact healthy trees or shrubs have the ability, during times of stress such as drought to shed their Mistletoes as can be seen under many large healthy trees in our forests.

Because there are so many species of Mistletoe right across Australia (91 at present), there are many species of birds, animals and insects that have evolved to depend on them. Species entirely dependent on Mistletoe include the Mistletoe Bird, the Painted Honeyeater, many of the Ogyris ‘Blue’ butterflies and the Jezebel Butterflies, while a multitude of other species are largely or partially dependent on them such as Sugar Glider, most possums and most species of honeyeaters. At ‘Panrock Ridge’, thanks to our large population of wattles that support many thousands of Mistletoes we have a large and healthy population of Sugar Gliders. We also have a constant good population of the exquisite Mistletoe Bird and even get regular visits from the now nationally endangered and rare Painted Honeyeater.



Wire-leaved Mistletoe on *Acacia mearnsii* © Neil Marriott

On several of our plants of *Acacia mearnsii* we have found up to four species of Mistletoe; Box Mistletoe *Amyema miquelii*, Wire-leaved Mistletoe *Amyema preissii*, Grey Mistletoe *Amyema quandang* and another plant that may well be a new species and is related to the Harlequin Mistletoe *Lysiana exocarpii*.



Box Mistletoe on *Acacia mearnsii* © Neil Marriott



Wire-leaved Mistletoe and Grey Mistletoe on *Acacia mearnsii*
© Neil Marriott

So if you want to add to the interest of your wattles encourage the growth of a few Mistletoes on them; they attract a host of wildlife to the garden and are extremely attractive in their own right.

Refs: 'Mistletoes of Southern Australia' David Watson and Robyn Hulley available from Bill and Sue via the APS Vic booksales.

'Flora of Victoria' Vol 4 Walsh & Entwistle P. 38-47.

Winter wattle spectacular – street trees in Ocean Grove, Victoria

by Tony Cavanagh, Ocean Grove, Vic

The winter of 2010 in Ocean Grove was relatively mild, with no frosts or extreme low temperature days and adequate and steady rainfall. In fact, the overall rainfall for the year was over 700 mm, some 300 mm higher than the worst year of the drought in 2008. The result was that the garden boomed and the acacias, both in the gardens and those used as street and boundary plantings, were as spectacular as I can remember. I have included a few pictures mainly of street trees because the plants were so noticeable, some uncommon, others very well known. I think that most of the names are correct, after both Bill and Bruce Maslin had a go at them, but any errors are mine. I learned one thing in the exercise of trying to put names to

other people's plants, and that is that when you have no idea of the name of a plant, it is extremely difficult to name it from descriptions of species in books, even when they include illustrations. There always seem to be too many possibilities.



***Acacia prominens* flowering branch, August 2011**

Two plants which particularly impressed me were what I believe to be *A. boormanii*, both as a large shrub and a small tree, and what we finally decided was probably *A. prominens*, a tree nearly as high as a power pole. The former had masses of fluffy flower heads and numerous long, narrow phyllodes while *A. prominens* was literally so covered in flowers that they hid the foliage. Both were being used as boundary plantings by neighbours and looked just so good during August and early September. Another two which intrigued me were *A. decurrens* and *A. mearnsii*. Again, they were trees used on boundaries and not especially common in gardens. *A. mearnsii* has a common name "late black wattle" in contrast to *A. decurrens* which is sometimes known as "early black wattle" and I never understood why. However, the latter was in full and spectacular flower from early August while it was mid November before the former graced us with its dull, pale yellow/cream flowers. The bright green, ferny foliage of *A. decurrens* makes a great contrast with the bright yellow flower heads.



***Acacia decurrens*, massed flowering August 2011**

A. longifolia and *A. iteaphylla* have long been grown as hardy, large shrubs in our coastal area, even if the latter is usually referred to as the Flinders Range wattle. They, coupled with *A. pycnantha* which can become a weed despite being our floral emblem, and *A. floribunda* are common in gardens and all looked great. I suppose the reasons for their popularity are that they are fast growing plants and adaptable to a wide range of soil conditions. *A. pycnantha* unfortunately, as I have indicated, has a tendency to weediness and a reputation for a short life as well as being a straggly plant. The flower heads and foliage in young plants are quite lovely and I wonder if pruning from an early age would improve things. Does anyone have experience with this?

The final two plants I found in my photographic excursions were both medium to large shrubs, one, which I think is probably *A. cognata*, was pendulous and other spreading and which I thought might be *A. montana* or similar. I remember that both were literally covered in flowers and I photographed them in close up to help with identification. Someone may have some suggestions.



Acacia cognata, possibly, flowers in close up, Aug 2011



Acacia montana or ixiophylla flowering branch August 2011

It will be interesting to see what the flowering of 2012 will bring.

Tony Cavanagh, Ocean Grove, Vic

Feature Plant - *Acacia gittinsii*

by **Bill Aitchison**

In our previous Newsletter No. 115, I listed the results of a survey of attendees at the recent ANPSA Biennial Conference, where one of the questions related to the favourite wattle(s) being grown in the respondents' gardens. I suggested that we may feature some of these plants in our future newsletters, with *Acacia gittinsii* being one of the first ones featured.

My impression had been that this species is not commonly grown, at least in Victoria. And now, based on the lack of responses from Study Group members as to experiences with growing this plant, I suspect that it may not be commonly grown elsewhere.

It is a graceful shrub, with linear phyllodes 1-3cm long and about 1mm wide, with globular flower-heads in axillary racemes.

It was first described in 1964, and is recorded as being endemic to the Blackdown Tableland in Queensland, where it grows on sandstone with a preference for moister areas (the Blackdown Tableland is 180km west of Rockhampton). As a result of its limited distribution, it is currently classified as being near threatened under Queensland's Nature Conservation Act.

Interestingly, in a recent communication with previous Study Group Leader Marion Simmons, she suggests that it could have a wider distribution. Marion comments as follows:

“It is a lovely plant. Although it is listed only for Blackdown Tableland NP, we distinctly remember photographing a particularly beautiful specimen of it on the Glenhaughton Road to Robinson Gorge National Park, south of that. This was identified as *A. gittinsii*. There does seem to be some confusion with its identity and its relationship with similar species. It would be interesting to know if any further work has been done on its position.”

One of the earliest references to *A. gittinsii* in our Study Group Newsletters was in 1983, when Marion included it in a list of rare or threatened Acacias, and suggested that we should make an effort to grow in our gardens (where climatic conditions are suitable).

One person who has grown it was Thais Eisen. In 2001, when Thais was Study Group Leader, she referred to having a group of three growing in shallow soil over granite on her property at Booie near Kingaroy, Queensland. She commented at that time as follows:

“With its fine phyllodes and semi weeping foliage it is one of my favourite wattles. The plants have been fast growing in spite of periods of very dry conditions. They are five

years old and measure approximately 3m x 3m. This is considerably larger than the height of 1 to 2m usually quoted. They never fail to flower heavily and are not suffering badly from insect attack- yet. Flowering has just finished in mid October which extends the “wattle season” considerably.”



Acacia gittinsii

Illustration Marion Simmons

In a subsequent Newsletter in 2005, Thais referred again to her experience with the size of the plant:

“I recommended *A. gittinsii* as a small plant as it is listed at 1 – 2m. Imagine my horror when plants cultivated on a dry ridge grew to 3-4m.”

Maybe it is one of those plants that may grow larger under cultivation than in its natural state?

There are currently some specimens being grown in the Australian National Botanic Gardens in Canberra. Thanks to Paul Carmen for his comment that although plants may not be long lived, they have one open weeping shrub that is 11 years old and approximately 2m x 2m.

Seed of this Acacia has been available from our Seed Bank for many years. In 2003, it was reported that one batch of 10 year old seed in the Seed Bank had not germinated (that seed was replaced). As a result of this, Hazel Kelly, Moonbi, carried out a trial comparing seedlings from recently collected and old (30 years) seeds of *A. gittinsii*. This trial indicated that the age of the seed does not affect the vigour of the resultant seedlings.

The species is named after Clifford Halliday Gittins (1904 – 1995). Mr Gittins was born in Brisbane but worked as a self employed engineer in Sydney. He had a keen interest in native flora and during the 1960s and 1970s made annual plant collecting trips, especially in northern Australia (he visited the Blackdown Tableland on a few occasions during the early 1960s). After he retired he moved to north Queensland where he lived in Kuranda and then moved to a nursing home in Atherton where he died in 1995.

Note: Any additional comments on *A. gittinsii* will be welcome. Another species that was noted in the responses to the survey at the ANPSA Conference was *A. longiphylloidea*. I would like to feature this in a future Newsletter – any comments on your experiences with this plant would be greatly appreciated.

Additional Note: Information provided by Queensland’s Department of Environment and Resource Management Wildlife Online lists *Acacia* species that are found in the Blackdown Tableland National Park. Three of these are classified as near threatened – these being *A. gittinsii*, *A. pubicosta* and *A. storyi*. Other species listed include *A. brachycarpa*, *A. implexa*, *A. hendersonii*, *A. harpophylla*, *A. glaucocarpa*, *A. flavescens*, *A. fasciculifera*, *A. falciformis*, *A. excelsa*, *A. resinicostata*, *A. polifolia*, *A. podalyriifolia*, *A. penninervis*, *A. oswaldii*, *A. neriifolia*, *A. melanoxylon*, *A. venulosa*, *A. ulicifolia*, *A. sparsiflora*, *A. shirleyi*, *A. semirigida*, *A. salicina*, *A. macradenia*, *A. leptostachya*, *A. leptocarpa*, *A. leiocalyx*, *A. leichhardtii*, *A. juncifolia*, *A. julifera* subsp. *curvinervia*, *A. everistii*, *A. dietrichiana*, *A. decora*, *A. crenata*, *A. concurrens*, *A. complanata*, *A. buxifolia*, *A. burrowii*, *A. blakei*, *A. aulacocarpa*, *A. bancroftiorum* x *A. falciformis*, *A. bidwillii*, *A. bancroftiorum* and *A. amblygona*.

Acacias in the News

by Bill Aitchison

Acacia daviesii (Timbertop Wattle) is a rare wattle that has a very limited distribution near Mt Timbertop in subalpine habitat in north eastern Victoria. It was first discovered in the late 1990s and was described in 2002. The area where it occurs is fire prone, and after bushfires in 2006 and 2007, only one above ground plant remained.

No successful seed set has been observed with this wattle, and it reproduces primarily by vegetative root-suckering.

An article in **The Age** (19 March 2012) discussed efforts being taken at the Euroa Arboretum to grow new plants and to ensure the species’ long-term existence. Fortunately, when the fires came through, the underground root systems survived and the populations actually increased as a result of suckering. New plants are being grown from cuttings at the Euroa Arboretum.

Whilst the species has survived the recent bushfires, there is concern that increased fire frequency has the potential to cause decline or elimination of populations. Fuel reduction burning also has the potential to damage or destroy populations and hence it is important that its habitat be protected in fire prevention and fire suppression activities.

A rather tragic story was recently reported in The Coffs Coast Advocate (14 March 2012). Jaaningga Nature Reserve (Jaaningga is an aboriginal name meaning 'wattle tree' in the local Gumbaynggirr language) is a reserve of 975ha located on the lower north coast of NSW, inland from Nambucca Heads. It was gazetted as a reserve in 1999, with one of the main objectives in establishing the reserve being to protect the Newry golden wattle (*Acacia chrysotricha*). This reserve conserves the majority of the known occurrences of this endangered wattle.

Sadly, a company Coffs Harbour Hardwoods Sales P/L has been found guilty in the Land and Environment Court of damaging the reserve and damaging plants. One of their bulldozers cleared 4000 square metres right back to bare earth cutting a series of trails through the reserve. At least 21 Newry Golden Wattles were damaged by the bulldozer, and although there is some sign of regeneration in some of the damaged plants, the damage to at least 17 plants, many of them mature trees, seems to be terminal.

The Company was fined \$85,000 and ordered to pay \$26,000 costs.

A paper recently published in the Australian Journal of Botany sets out the results of a study that mapped the species richness and endemism of the genus *Acacia* in Australia.

Species richness relates to the numbers of *Acacia* species found in a particular area. This study confirmed previous research that identified three primary centres of species richness, these being the South-West Botanical Province in WA, the MacPherson Macleay overlap, and the Central Coast of the Sydney Sandstone region. For those, like me, who had not previously heard of the MacPherson Macleay Overlap, it is that area of eastern Australia where the tropical and temperate zones overlap – and it includes part of south-east Queensland and part of north-east New South Wales. This is perhaps significant to us, because I think it includes part of the area that we will be visiting on our Study Group Field Trip in August.

In relation to endemism, the study identified 21 individual centres with high *Acacia* endemism (based on the measure used in the study). It is interesting that a large proportion (18%) of all *Acacia* species are classified as being locally endemic. Whilst there are some species that are very widespread in Australia, this statistic indicates that many have very limited distributions.

Reference:

Gonzalez-Orozco, C. E., Laffa, S. W., and Miller, J.T. (2011) Spatial distribution of species richness and endemism of the genus *Acacia* in Australia. *Australian Journal of Botany* **59**, 601-609

The January 2012 issue of *Eucryphia* (APS Tasmania's quarterly magazine) included an article, Black Wattle - Boots, Bettongs and Flynn, by Phil Watson. This fascinating article reflects on the many and varied attributes and uses of *Acacia mearnsii*. I have a copy of the article if anyone would like a copy.

Seed Bank

It is rather pleasing to learn that at least some people manage to read the whole of our Newsletter, right through to the last page! In our previous Newsletter No. 115, I incorrectly stated that an updated list of species in our Seed Bank was included in the Newsletter. That was incorrect as we only include the Seed Bank list in our September Newsletter. However, a number of members noticed the error and queried it with me. My apologies for the mistake.

I would like to extend our thanks to Doug White for a very generous donation of seed to the Seed Bank.

A reminder that requests for seed should be directed to Esther Brueggemeier.

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.

Study Group Membership

Acacia Study Group membership for 2011/12 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:
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)