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ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

ACACIA STUDY GROUP NEWSLETTER
No. 91 May 2004

Dear members,

It is membership renewal time again and I will enclose renewal forms with this newsletter where necessary. Subscription rates will remain the same at $5 if the newsletter is sent by email, $8 for a posted hardcopy and $12 for overseas membership. Because an increasing number of members are receiving the newsletter by email the Group's bank account remains healthy despite increases in the cost of photocopying. A financial statement will appear in the next newsletter.

When I took over the leadership of the ASG the bank account stood at over $700. The present subscriptions cover the cost of producing the year's newsletters so that money remains untouched. It seems to me that there is no point in having this level of excess funds sitting in the bank doing nothing. Does anyone have ideas how some of this money could be used for the benefit of ASG members? The new 'Wattle' CD which can be used with computers utilising the latest Microsoft Operating System – MS Windows XP is one suggestion. (Our present 'Wattle' CD is designed for the older Operating Systems - Windows 95 and 98.) Another is buying books which members could borrow for the cost of postage. Libraries can access most books on request but not all books are available and not everyone has ready access to a library. I already loan out some books of my own to ASG members. Obviously I don't want to do anything without the approval of the members as it is your money so please let me have your ideas.

It is also time to review the past year and give sincere thanks to the members who have supported the group with letters, articles, photos and trials of seed.

We remain largely a special interest group and as I mentioned at this time last year, I would be happy to hand over the leadership to anyone interested. In that situation I would be prepared to write articles and give any help I could to the new leader. In the meantime I am content to continue but would appreciate any new ideas for the Group.

Last year

Membership

Membership has grown from forty-five to fifty individual members and the number of group or branch memberships remains at nine. This does not include the state branches or their Office Bearers who receive newsletters. A list of members will appear in the next newsletter.

Photo Library

This has been one of the more satisfying features of the year. Not only did the rest of the group's slides turn up (they had been mislaid) but seven boxes of slides were donated to the library by June Rogers. These were from her late husband's collection and they are a valuable addition to the library. Most of the slides have been scanned into the computer and it is still the aim to put them on a disc with information about where they are likely to be successful in cultivation. The Study Group's archives contain a wealth of information of this type ie what

type of soil and climate is preferred . Matching this up to the slides is a large task and one with which I have not made much progress. Any help with this would be gratefully received.

Trials comparing the viability of seedlings from old and fresh seed.
Three members took part in these trials and sent in carefully compiled results. Even though the trials were limited all suggested that the age of the seed did not influence the vigour of the seedling after germination.

Acacia displays
A number of individual members have participated in displays of acacia flowers in spring. Also the ASG presented a display at the Redcliffe Botanical Gardens in SE Qld in the first week of August when our acacias were at their best. The problem of 'Wattle Day' occurring after acacias up here have almost finished their spring flush of bloom remains.

Rail Trail
The first plantings of acacias supplied by the ASG took place on the Fernvale to Lowood Rail Trail in SE Qld. This should be the start of many more plantings.

Seed Bank
The Bank continues to be well patronised and 157 packets of seed were sent out to members. Thirty- three lots of fresh seed were added. Thanks to members who contributed to this total and also those who have sent in the results of their germination trials.

From members: letters and emails

From Aub Podlich at Boonah, Qld

Readers of your newsletter may be able to help with information on *Acacia harpophylla*. I grew up in brigalow vine scrub at Boonah. local farmers here speak (as my farther did too) of "Black Brigalow" and "Yellow Brigalow". They speak of two types of brigalow in the scrubs, which can only be determined by cutting through the sapwood to the hardwood beneath. One, they say, has dark wood and is suitable for fence posts; the other has yellow wood and rots easily. They maintain that the two types of brigalow wood are not determined by age of the trees (the yellow is not a sapling), nor by soil type, as they grow together. Are there any other farmers around who might shed some light on this, for some research I am doing on brigalows ? It's interesting to note the different foliage colour of local *harpophylla* here (basically, green) when compared with central Qld *harpophylla* (a beautiful grey). I have grown both from seed here.

Bob O'Neill, Katandra Gardens, Vic

Some time ago I received seeds of several sub species of A drummondii. They were duly planted in the same fashion as with any other acacias and I waited. And I waited and waited till finally I was tempted to throw the lot out wondering what had gone wrong. Finally they started coming up and I was able to prick out the tiny things in the last week. The seeds were tiny but I have not handled such fine roots before. None the less, they seem to have all survived and now I wait for time to take its course till I plant them out. Meanwhile I have 20 or so species to plant out as soon as the garden is prepared and the weather and time permit.

Jeff Irons in the UK

Here is a poser for you. When young seedling acacias are being transplanted the root disturbance causes many of them to emit a vile smell. It is always the same and *Paraserianthes lophantha* has the same smell. Has anyone ever analysed it to find out the chemical identity? What is the purpose? To deter root predators?

I am embarrassed about this one as I received this query from Jeff 9 months ago and have not come up with a reply. I assumed that this was something everyone knew about and I was the only one in the dark. Quite the contrary. I have tried the local Universities and Government Departments without success. It was even suggested that I try someone who grows a lot of acacias. That's me.

***Also from Jeff**. who sent a list of 44 acacias offered for sale in nurseries in England*

A surprising thing about the list sent to you is that four nurseries list A.pataczekii. I wonder whether the plants offered are cutting grown rather than being seedlings. Almost certainly they will be imported, either from France or from the Netherlands. The species grows well at Kew Gardens in London and has survived -17C in Germany. I've tried it three times and have failed each time. The best it would do here was flower in late summer, then die.

I visited the local garden centre today. No acacias were on sale. Three years ago it had 60-80cm high *A. dealbata* for £22.50 each. To put that in perspective, the average wage is now about £22 500pa. and the average household income is £38 000p.a. Household expenditure is now about £406 per week. Many garden centre customers treat plants as disposable. Most people change about 25% of their garden every year - remember a large garden is 25ft x 30ft

The 'bible' for borderline plants *(in the UK)*is 'Shrubs for the Milder Counties', published in 1948. It is a lexicon of woody plants grown in Cornwall at that time. *A retinodes* is not mentioned. It does contain a photo of a 6ft high *A. verticillata* growing in Cornwall. In spite of the foliage I tried this species, again in the '70's. It died.

The interesting one is *A. melanoxylon*. It is reputed to have naturalized near Blackpool (a seaside resort on the Lancashire coast, about 40 miles north of here). I had 3. Two of them died in the wettest winter of the past 50 years. The third is now about 30ft high, and is 3 and a half years old.

The two species that are grown in greatest number are *A. baileyana 'Purpurea'* and *A. dealbata.* They can be grown outdoors in inner London and near the coast of much of southern England. We are now experiencing much warmer winters than previously and I think it likely that they would survive in places where formerly they were ungrowable. This will apply particularly if they are grown against a wall. Most of the acacias sold are grown under glass, either in a cool greenhouse, in a glassed in front porch or in what is nowadays called a "conservatory". It is not a conservatory in the old sense, but is a double glazed poorly ventilated room attached to a house. Often it has central heating. Often too it is useable for 2 hrs a day, being too cold or too hot for the rest of the time!

Perhaps the next most widely grown acacias are *A. boormannii* and *A.drummondii*. In the 1970's I tried several spp. outdoors, all died. They included *flocktoniae, frigescens, pycnantha* (ex Ararat), *gladiiformis.*

I have looked up what acacias were growing in the grounds of Rostrevor House, County Down in 1810. *Armata, calamifolia, decurrens, leprosa, longifolia, neriifolia, podalyriifolia, verticillata* were all marked as being too small to plant out or having been in the garden for too short a time for their winter hardiness to be assessed. *Pycnantha, melanoxylon* and *dealbata* were regarded as hardy. 1810 was near the end of a period of warm winters, warmer than those being experienced now. Over much of the 1800s winters were long and cold. In the 1900's I know that cold winters were experienced in 1938, 1947, 1963 and 1987. Few, if any, acacias would have survived them. In 1963 the ground froze to a depth of 3ft or more, so that in some places water pipes froze. Many plants, previously considered winter hardy, died.

The *A. nano-dealbata (see Plate 7)* in my picture is still in full bloom. It sets virtually no seed. Evidently the pollen blows across to the other specimen, some 30ft away, for that has a large crop of seed.

From Bruce Maslin,WA

This is to inform you that a new Acacia website, WorldWideWattle, will be launched via a direct webcast from the small Western Australian rural township of Dalwallinu on 25 March between 6 and 7 pm (Western Australian Standard Time). The launch of WorldWideWattle is one of a number of events (including the launch of the AcaciaSearch book that Maurice McDonald and I recently completed) that will happen, under the banner of the 'Dalwallinu Environmental Expo', during this hour long webcast. The attached press release, prepared by the Dalwallinu Shire, provides some background information concerning this event. If you wish to view the proceedings then log on to www.worldwidewattle.com and follow the links that will be provided on the home page. The timing of the launch is a bit unfortunate (but unavoidable) because it will mean that many of you will not be able to view it in real time should you wish to do so. However, a video replay of the launch will remain at www.worldwidewattle.com for about a month after the 25th.

This newsletter is far too late for the actual launch but some of you may be able to catch the video replay even at this late stage. A look at the WorldWideWattle website is a must for acacia enthusiasts.
The following is part of the press release mentioned above.

World Wide Wattle website

The World Wide Wattle website (http://www.worldwidewattle.com) will be launched during the Environmental Expo by the Hon. Kim
Chance, WA Minister for Agriculture, Forestry & Fisheries, Midwest, Wheatbelt and Great Southern.
This site is a collaborative project involving the Shire of Dalwallinu, the Western Australian Department of Conservation and Land Management and the Canberra-based Australian Tree Seed Centre (part of CSIRO Forestry and Forest Products).

The aim of the website is to deliver authoritative information on Australian species of Acacia in order to inform, educate and promote the conservation, utilisation and enjoyment of this important group of plants.

Information focuses on the scientific, social and cultural importance of Wattles and is intended for use by a wide range of users, both professional and amateur, including taxonomists, ecologists, foresters, horticulturalists, naturalists, school children, and indeed, anyone who simply wants to learn more about this fascinating group of plants.
It includes descriptions and photographs of the species, information about where they grow and how many species occur in different parts of the world, information on the cultivation, utilisation and taxonomy of Wattles.

The website is a culmination of work by a team headed by Mr Bruce Maslin from the West Australian Department of Conservation and Land Management. Mr Maslin has been studying wattles for more than 30 years.

The following is from a press release which is on the web and also appeared in some local newspapers up here (SE Qld). It concerns the book 'AcaciaSearch' mentioned by Bruce Maslin above.

Commercial wattle plantations to fight soil degradation
26 March 2004

The potential for one of Australia's most valuable native plants to combat land degradation and provide an alternative source of income to landholders has been detailed in a landmark new publication titled AcaciaSearch from the Joint Venture Agroforestry Program (JVAP).

Launched by eminent forestry researcher John Bartle, AcaciaSearch identifies, evaluates and provides detailed information for Acacia species considered prospective as new woody crop plants in the agricultural region of southern Australia (within the 250–650 mm rainfall zone).

Mr Bartle said the impetus for the study is the need to undertake large-scale commercial plantings with perennial plants as a treatment for salinity control in these regions

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"Emphasis is given to fast growing species with potential for producing large amounts of wood biomass that may find uses as solid and reconstituted wood products and for bioenergy, and which may possess commercially attractive by-products such as extractives (especially tannin and gum) and fodder.

"There is currently no large-scale commercial use of Acacia within the southern Australian agricultural zone despite the fact that acacia is the largest plant group in the area. "

Mr Bartle said Acacia is a diverse and enormous genus with almost 1000 species in Australia. "This represents a vast resource for economic, environmental and social utilisation, but to date their major usage has been overseas."

"Many Australian Acacias produce good quantities of wood biomass and display a range of variation in growth form, growth rate, longevity and coppicing/suckering ability.
"They are adapted to a wide range of soil types and climates, including drought- and frost-prone areas.

"Acacia species have hard-coated and relatively large seeds (which are amenable to direct-sowing techniques), have the ability to improve soil fertility through nitrogen fixation, are usually easy to germinate and grow, and generally show good survival and rapid growth rates under cultivation.
"These favourable attributes provide the encouragement for considering Acacia species for development as new woody crop plants for southern Australia."

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AcaciaSearch - Evaluation of Acacia as a woody crop option for southern Australia

By B. Maslin and M McDonald A$60.00

Seed Bank

Thanks to Neta Lester for seed of *A.wardellii* from Myall Park Botanical Gardens. These come with the warning that they have not been checked to confirm that they are 'true'. Any takers?
I have taken the liberty of donating seed of *A.chinchillensis, handonis* and *lauta* from the Seed Bank to a project sponsored by Myall Park Botanical Gardens, Landcare and the SGAP. Seven schools in the Tara Shire are taking part in the project which involves growing and planting rare and endangered species of native plants. The Bank has large numbers of seeds of all three species and donating 50 of each did not make a noticeable dint in the numbers. Some of the seed dates back to 1978 but it is still very fertile.

More about wattles at Yallaroo

from Warren Sheather

Acacia cardiophylla (*Plate 1*) is known as the Wyalong wattle and comes from the Western Slopes of New South Wales. The Wyalong Wattle is well known in cultivation. It is a medium shrub with soft, bipinnate foliage and bright yellow spring flowers. Both foliage and flowers are attractive features. We have two specimens in our garden. One plant is almost eight years old and is still surviving, thriving and blooming bounteously.

Acacia cardiophylla could be cultivated as a specimen plant or incorporated in a native shrubbery.
Pruning, after flowering, is appreciated.

There is a prostrate form known as 'Gold Lace'. We have not grown this form but it should develop into an eye-catching ground cover.
Propagate the 'normal' form from seed and possibly cuttings. 'Gold Lace' would probably need to be propagated from cuttings to preserve the prostrate growth habit.

Acacia covenyi (*Plates 2 & 3*) is known as the Bluebush and is a rare species from southern New South Wales. We were given seeds from the wild population some years ago and have a number of specimens growing. One plant is about three metres tall. This is a rather straggly specimen as the plant has missed out on regular pruning.

Acacia covenyi is a tall shrub with beautiful grey-green phyllodes and golden yellow spring flowers. Collectively foliage and flowers make a stunning combination although the species could be cultivated as a foliage plant with the blooms as an added bonus.

Acacia covenyi is becoming well known in nurseries.

Propagate from seed or cuttings but a word of warning about seed propagation. We have found that this Wattle is rather promiscuous. The seeds grown from our cultivated plants developed into a colourful hybrid (see below). We now propagate *Acacia covenyi* from cuttings. They strike readily and rapidly.

A **Hybrid Acacia**.(*Plate 4*)

One of our most colourful Acacias was grown from seed collected from a cultivated *Acacia covenyi*. As these seedlings developed we realised that they were not 'pure'*Acacia covenyi*. They grew into tall shrubs with dense foliage. Their phyllodes were nearer green than grey-green, are almost triangular in shape and are two centimetres long. In spring the plants are covered with masses of golden flowers.

We think that this hybrid is the result of a liaison between *Acacia covenyi* and *Acacia vestita*. The suspected parents are growing in close proximity.
This hybrid propagates readily from cuttings and accepts enthusiastic pruning.

Acacia filicifolia: (*Plate 5*) We do not have this species in cultivation at Yallaroo but this deficiency will be remedied in the near future. *Acacia filicifolia* is one of a number of species commonly known as Fern-leaf Wattles or Green Wattles. This Green Wattle grows into a small tree with bipinnate foliage. The yellow flower heads are carried in racemes and appear in spring.

Acacia filicifolia is common both east and west of Armidale on the Northern Tablelands of New South Wales. There are dozens of plants growing, in our previous garden, which is in a large rural subdivision closer to Armidale. When stock were removed, from this area, there was an explosion of *Acacia filicifolia*. In spring this area becomes a blaze of colour and is probably the best Wattle display in northern New South Wales.

Acacia filicifolia will sucker if the roots are disturbed. The species does not occur naturally on Yallaroo although we are only a few kilometres from our previous garden. There is a watercourse, known as Tea Tree Creek, between Yallaroo and the large concentration of *Acacia filicifolia*. This creek seems to be the western limit (e.g. *Acacia filicifolia)* of some plant species and the eastern boundary (e.g. *Acacia neriifolia*) of others.
Acacia filicifolia is propagated from seed and possibly transplanted suckers.

A. flexifolia (*Plate 6*) is one of our favourite wattles. Small bent phyllodes and lemon yellow flowers characterise this species. The flowers appear in late winter and we regard this wattle as a herald of spring. *Acacia flexifolia* is a native of the Western slopes and Plains in NSW and extends to central Victoria. There is also a small population west of Armadale.

The above comments appeared in an article by Warren Sheather in the Nov, 2001 newsletter

Two butterflies whose larvae eat acacias

See black and white plates

Large Grass Yellow (*Eurema hecabe*) Family Pieridae (whites and yellows)

This is basically a tropical/subtropical species with a wide distribution in Australia and overseas. Though it may be largely tropical in Australia it has been recorded as far south as Geraldton in WA and in the southern half of NSW (Butterflies of Australia by M.F. Braby). It is common around Brisbane.

The larvae feed on a wide range of native and introduced plants but usually species with divided leaves. Acacias are common hosts and in a nursery situation the larvae can be a major pest. They are hard to see even though they feed in the open and often rest along the mid rib of the leaf they are eating. Their colour can be very close to that of the leaf and is excellent camouflage.

I have had a wide variety of young acacia seedlings stripped before I penetrated the camouflage of the culprits. In a local commercial nursery *A.conferta* and *spectabilis* were particularly targeted.

Plate1 Three larvae on *A.conferta*. These are green with a white and yellow stripe down each side. They may be up to 30mm long.

Plate 2 A larva about to shed its skin and become a pupa. Its last pair of legs are embedded in a pad of silk and it has constructed a silken girdle to support it in an upright position.

Plate 3 A pupa. These are green until a day or so before the butterfly is about to emerge. At this time the folded and contracted wings of the butterfly become visible as in this plate.

Plate 4 This butterfly has just emerged and is waiting for its wings to dry. The underside of the wings shown here are bright sulphur yellow with brown markings verging on gold.

Plate 5 The upper surface of the butterfly. Again the wings are bright sulphur yellow but the markings here are black. The wingspan is up to 40mm.

Tailed Emperor (*Polyura sempronius*) Family Nymphalidae (browns, nymphs and danaines)

This very attractive butterfly occurs across northern Australia, down the east coast and as far inland as Hughenden, through the ACT and Victoria and across to Adelaide. (Butterflies of Australia by M F Braby).

The larvae feed on a wide variety of introduced and native plants, particularly those with divided leaves. It is common on acacias with true leaves but rarely in sufficient numbers to damage the plants. The larvae bind the leaflets together with ‘silk’ to form a platform on which they rest during the day after feeding at night. These are often the first indication of the presence of the larvae.

Plate 6 A larva on *A.glaucocarpa*. These may be up to 50mm long. They are green or bluish green with a variable number of half moon shaped markings down the back. The markings are yellow with a blue edge at the front. In this case there are 9 of these markings but there may be as few as two. The head is green and has 4 large horns with very small, black horns between these.


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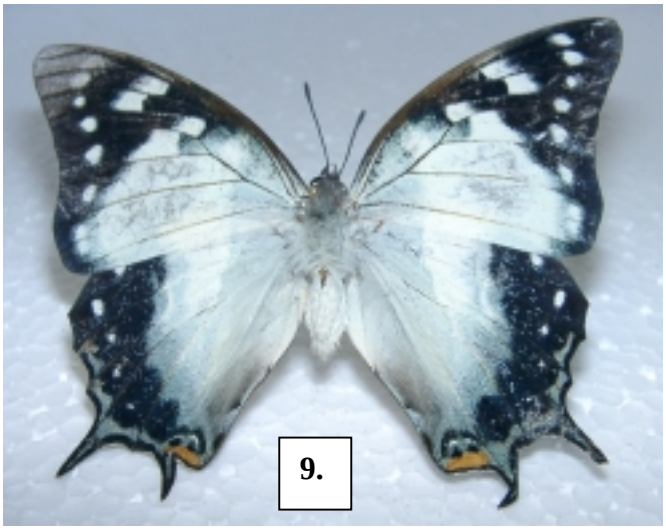
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Plate 7 A pupa with the old skin and head case of the larva still attached. The pupa is green with white markings.

Plate 8 A recently emerged butterfly waiting for its wings to dry. The markings are on the underside are black, brown, bluish-grey, orange and brownish red on a cream background.

Plate 9 The upper surface of the butterfly. This side is less colourful with black markings on a cream background. The back edge of the hind wing has some orange and bluish-grey.

Coloured Plates

Thanks to Warren and Gloria Sheather for Plates 1 to 6. These photos were taken at their property 'Yallaroo'and comments on them are in the article above. The comments below are compiled from the ASG archives

Plate 1 *A.cardiophylla*. This species appears to be very adaptable with records of healthy specimens growing from Vic to central Qld. Soils mentioned include clay (of various types), sandstone, red basalt, loam and sandy loam. Average rainfall varied from 420 to 1225mm. Temperatures varied from –6 to 43 degrees. I can vouch for the drought hardiness of the species in shallow soil near Kingaroy.

Plate 2 *A.covenyi* No records

Plate 3 *A.covenyi*

Plate 4 *Acacia* hybrid

Plate 5 *A. filicifolia* Very few records. Grown in sandy loam over clay. This species grows rapidly in the shallow soil over granite near Kingaroy but is targeted by insects to the point that its lifespan is extremely short. Presumably this is an indication that it is stressed by the conditions.

Plate 6 *A.flexifolia*. This is another widely grown species. Soil types varied from an assortment of clays to red loam and sandy loam over clay. Temperature extremes were –8 to 45 degrees. This is a very drought hardy species which grows well for me near Kingaroy in very shallow soil.

Plate 7 *A.nanodealbata* This is the photo mentioned by Jeff Irons in his letter.
According to the 'Wattle' CD this species grows mostly 'in subalpine eucalypt forest or in tall open forest.' It may grow to 12m


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