

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS**ACACIA STUDY GROUP NEWSLETTER No. 79****May 2001**

Dear members

Thank you for your support, good wishes and ideas. They are greatly appreciated. As you can see from the membership list we are a small group but I hope we can make up for that in enthusiasm. This will just be an introductory newsletter to let you know what is happening. I have been promised articles and contributions from members for future editions.

First of all the superb application form was the work of Jan Sked. I do not have any artistic skills and am indebted to Jan.

A couple of people have asked me to include a profile of myself so here goes. First of all I am a female. My first name obviously causes some confusion as I often receive mail addressed to Mr Thais Eisen. I have a background in biology and took early retirement a couple of years ago. I then worked briefly as a volunteer in the Identification Room of the Queensland Herbarium. I am a new comer to the Acacia Study Group and joined not long before its demise. I have always grown plants in an obsessive way and when I ran out of room in Brisbane I purchased 30 acres near Kingaroy at Booie (2.5 hours NNW of Brisbane) as a weekender. There I have planted natives wherever there is a gap in the trees. This includes over 150 species of acacias grown with varying degrees of success and quite a few deaths. Acacias and grevilleas have been the most successful groups in the poor skeletal soil. If any member is up this way and would like to visit you would be very welcome. We are, however, a doggie family. I use a computer but only with a great deal of assistance from computer literate family members. In case anyone has missed my email address it is 4thais@optushome.com.au.

Seed Bank

The seed bank is now ready for business. I have taken out what damaged seed I could see but may have missed some. Some seed has been replaced and five new species added from my stock. Rob Potter, a member from SA, has very kindly offered to test the older seed for viability. A form will be included with each lot of seed I send out and I hope you will return the completed forms to him. This is to give us an idea of which batches of seed, if any, are not viable.

The number after the species name on the seed list is the year of collection of the most recent batch of seed we have in stock. As you can see there are no dates for many species and others only have a date which indicates the latest time they could have been collected eg pre 82. They may be much older than that date particularly if the seed is from a commercial source. Acacia seed is well known for its longevity so we may have no problems but please do fill out the forms so we know where we stand

The limit of 12 packets of seed per order is one I have inherited and will be increased to a maximum of 18 packets. After all we are in the business of encouraging people to grow acacias and at present the group is small. If ordering over 12 packets and also if ordering large seed a padded post bag is really needed rather than a thin envelope. The cost is 65c for the bag and the cost of postage is \$1. This could be sent in stamps. The number of seeds I send will depend on the seed available and the postage you have sent. If there is a lot of seed of a particular species in the bank and/or I can readily obtain new supplies I will send more than half a dozen seeds if your postage will cover it. The idea is to pass on surplus seedlings and convert others to the acacia way.

Please don't forget that new supplies of seed are always needed.

Please look critically at what you raise. In some cases batches of seed in the bank under one name look different. Commercial suppliers are at the mercy of their collectors. There is also the possibility of hybrids if the seed is from cultivated plants. I will give the provenance of the seed if I can. I have raised seed from wild *A.fimbriata* growing with *A macradenia* (an introduced species in the area) and

found that two of the ten seeds produced plants that were very obvious hybrids with characters intermediate between the parents. This may be a rare situation but should be kept in mind. Hybrids could, of course, be very interesting and useful. More about that in future newsletters.

Aims

The aims of the study group are still fluid and I appreciate any input.

I have included some coloured plates and will do this in each newsletter until the end of June next year. The cost of a single page of colour plates in four newsletters is not covered by present subscription rates and the situation will have to be reviewed then. Members can decide at that time if they would like the colour plates to continue with subscriptions increased to cover the cost.

Hopefully, future photos of acacias will be provided by members along with information on the conditions under which they grow their plants. This, in time will give us a collection. I don't propose that we try reinventing the wheel and I am aware that there are many photos available in books and on the web and also that acacia taxonomy has been well covered. What I would like to see is a collection of acacia photos with information on where they will grow i.e. not their natural distribution, which is already known, but how adaptable they are. Much of this information has already been gathered over the years during which the group has been functioning but we will add photos. The idea is that someone could look through the photos, see something they like and get a fair indication of whether that particular species is worth trying in their area. A photo of the habit of the plant and a close up of the flowers and any other attractive features would need to be included. This information could be put onto a CD at very little cost and additions could be easily made as more data becomes available.

Would members please take photos of their favourite plants and send them to me. (Don't forget that good close up pictures can be obtained by scanning a piece of plant directly into a computer.) I will scan them into my computer for storage and print some out for inclusion in newsletters. Photos and slides can then be returned to the sender. The important point here is that the identification of the plant must be correct. If you are not sure please send a specimen to me. More about that below.

As an example I have included photos of *A.bancrofti* cultivated at Boobie. This is not really a good example as it grows naturally in the South Burnett though not in my area. It was chosen because it happens to be one of the few acacias flowering at present. I ask for comments from any other members who have grown *A.bancrofti* away from its natural habitat. I have listed some of the information it would be useful to include but any data is of interest at this stage and we can always add more later. A key to soil types will be included in the next newsletter. This should give us a more accurate description of where plants can cope.

I have also included photos of insects as an example of another collection of photos I hope we will produce – 'insects associated with acacias'. With the photos, comments on the damage the insect inflicts and possible non-chemical control will be added, if possible. This is more specialised but our identifications need not be at a specific level. If you are into photography please think about this one. Your local museum should be able to help with identification but if that is not an option let me have a go. My original training (eons ago) was in entomology and I should be able to add comments if necessary.

More ideas next newsletter.

Wattle: Acacias of Australia

by Bruce Maslin.

This is the title of a CD-ROM published recently by CSIRO. I hoped to have a copy for the group before sending out this newsletter but it will not be available for another week or two so I have decided to go ahead without it. The CD will be available for loan to members as soon as it arrives for a period of two weeks at a time. The cost will be \$ 1.80, preferably in stamps, to cover the cost of a CD box and postage. I have reproduced below the information put out by the publishers.

Wattle: Acacias of Australia

Wattle provides interactive identification to almost 1200 species, subspecies and variants of Australian acacias. This powerful electronic key will enable species to be quickly and accurately named, irrespective of whether specimens are in flower or fruit. Wattle provides the following information for each species.

** Botanical description*

** Distribution map*

** Line drawings, one of which will be annotated to highlight the most critical features of the plant*

Supplementary drawings, derived from sources such as Muelier's Iconography of Australian Acacias, Simmons' Acacias of Australia and Whibley and Symons' Acacias of South Australia (for many of the species).

Systems requirements

** Windows 95/NT or later*

** 256 colour monitor (800 x 600 recommended)*

** 24 Mb hard disc space*

** 16 Mb RAM*

** Internet Explorer 5 or Netscape 5 (supplied on CD)*

I have used the key and found it very user friendly. It is well worth a try even if you have never used a key before. If you do not have a computer don't forget that libraries have free computer access for members and staff will usually point you in the right direction.

Identification of acacias

If you are uncertain about the name of an acacia, trying this key would be the first option. If you are not happy with the key or do not have access to a computer, press a few specimens and send one to me. If I am not sure I can try a higher authority for the identification job. The specimen would need to be about 30cm long and include flowers/fruit if possible as well as typical leaves or phyllodes (preferably not well chewed by insects). The key works without flowers/fruit but life is easier with them.

In case anyone has not pressed plants before – place the specimens between sheets of newspaper and apply pressure to flatten them until they have dried out. A well flattened specimen is much more easily stored than one which is poorly pressed and has bits and pieces sticking up just waiting to be broken. People use a variety of ways to press plants with sheets of board and clamps most common. I must admit that I use a piece of stiff wire mesh with a besser brick on top – not recommended by the experts but very effective. The newspaper needs to be changed a couple of times to prevent the specimen from growing mould (not so much of a problem with wire mesh). If you are mailing specimens protection with sheets of corrugated cardboard cut to size is very effective. Please ask if you have any problems.

Inez Armitage

I include below an excerpt from a letter received from Bruce Clarke.

Since my last newsletter I have been notified of the death of previous Leader Inez Armitage. Inez was leader from 1971 – 76 and produced 19 newsletters. She was in a nursing home in her final years and found not being able to look after her four acre garden frustrating. Inez travelled widely and photographed many species and collected seed, some of which found its way into the seed bank. She wrote "Acacias of New South Wales" (1977) which covered 195 species. She contributed a lot of

slides to the group collection. Some of the enlarged photos were from her slides including *Acacia purpurea*.

The note read

'It is with deep regret that I inform you of the death of Mrs Inez Armitage on Dec the 28th. She was staying in a Nursing Home and passed away peacefully in her sleep.

Inez asked me to say a special Good Bye to you. I am sure we will all remember her fondly, as we did at her funeral on 4 Jan 99.

Sincere regards

Rudy Kohlhasé'

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Insect associated with acacias

Photos will later be grouped together in orders with some information about the order concerned. For now they must stand alone. A number of species occur in the families mentioned below and I am only dealing with a couple at present. Photos of other species in these families would be very welcome.

Spittle bugs (Order Hemiptera, Families Cercopidae and Aphoroidea)

Members of these families produce the familiar 'spittle' on a number of native plants including casuarinas, acacias and grevilleas.

1. This is a young branch of *Acacia havilandii*.
2. The 'spittle' has been washed away with a gentle jet of water. This is a young bug or nymph and the black patches at its sides are wing pads. A number of juvenile bugs occur under each patch of 'spittle' which gives them protection from desiccation and predators.
3. Here a nymph is producing a bubble of 'spittle' so that it can re-cover itself. The bubble is formed by blowing air from a ventral abdominal channel through anal secretions.
4. These are newly emerged adult 'spittle' bugs. The nymphs have shed their skins and their wings have expanded from the wing pads. The adults move out from the protection of the 'spittle' and live independently.

These are true bugs so have piercing and sucking mouthparts which have the potential to damage plants. However, they are rarely present in large numbers and are easily removed with a strong jet of water.

Case or bag moths (Order Lepidoptera , Family Psychidae)

Caterpillars or larvae of this family weave tough silken bags or cases to protect themselves. The cases may be plain or ornamented with leaves, sticks or other materials. Only the head and the three pairs of legs of the larva emerge through the open upper end of the case to move it or for feeding. Faecal pellets are discharged through the opening at the lower end of the case. At maturity, a larva anchors its case and pupates in it. The adult males which emerge are insignificant winged moths. The females of the majority of species remain wingless and confined to their cases. They are fertilised through the open lower end and lay their eggs within the case. The newly hatched larvae leave the case and spin tiny cases of their own. The case is enlarged at the upper end as the larva grows.

1. A case with phyllodes of *Acacia pravissima* attached.
2. The case cut open to show the larva.

Case moths eat the leaves of a number of native and introduced plants but are rarely present in large enough numbers to cause problems.

SPITTLE BUGS



1.



2.



3.



4.

CASE or BAG MOTH



5.



6.

Cultivated acacias

Acacia bancrofti cultivated at Booie near Kingaroy

Site – about 200m down a 1 in 20 slope, light shade from eucalypts.

Soil – shallow(less than 60cm) duplex soil over granite which dries rapidly but is waterlogged after heavy rain. The topsoil is sandy and the subsoil light clay.

Annual rainfall – 700mm mainly in summer

Frost – hardy to –5 degrees (the coldest registered there)

Drought – no problems with a drought period of less than 100mm of rain in 6 months

Comments – the phyllodes on these plants are green and almost uniformly narrow as opposed to the high percentage of broad grey green phyllodes present on plants cultivated on the crest of the ridge.

Only young plants growing on this site have that type of foliage. The flowers are bright yellow as opposed to the pale yellow to cream usually described. These plants are 5 years old and about 4m high.

A new method of germinating *A.bancrofti*

Only three seedlings had grown in the vicinity of these plants until a couple of months ago. This is in spite of the fact that the plants shed heavy crops of seed over at least three years and some periods of heavy rain have been experienced. No seedlings have appeared near the plants on the ridge. After 9 inches of rain in February our 4 wheel drive vehicle came very close to bogging near these plants and subsequently over 20 seedlings have appeared in the rut where the tyre sank. I have found only one new seedling elsewhere. Perhaps members would like to try this method on recalcitrant seed.

My thanks to Jim Brooks for his photography and computer support.



1.



2.



3.

Acacia bancrofti cultivated plants growing on shallow duplex soil near Kingaroy.

1. Habit of plant.
2. The large phyllodes shown here are characteristic of young plants.
3. Close up of flowers.