



Acacia brunioides

Australian Native Plants Society (Australia) Inc.

ACACIA STUDY GROUP NEWSLETTER

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Note: If you wish to view or download previous Study Group Newsletters, they are available on the Study Group website.

The address is:

<http://anpsa.org.au/acaciaSG>

From The Leader

Dear Members

Our Acacia Study Group is currently one of 16 Study Groups that are part of the operations of our national body ANPSA (Australian Native Plants Society Australia). These Study Groups have been set up with the aim of promoting interest in growing and studying Australian flora.

Coordination of the various Study Groups is managed at the national level by **Jane Fountain**, who is the AHPSA Study Group Coordinator. Jane does a wonderful job in this role, ensuring that the Study Groups are set up and operate as efficiently as possible.

One of Jane's recent activities has been to draft a one page Study Group information handout that hopefully can be used by Study Groups, or by local APS district groups at any meetings, gatherings, public displays etc. I have a copy of this one page draft – please let me know if you would like a copy. It is in Word format so that you can add your own contact information or other edits appropriate to the situation.

Whilst referring to our national body, I might also take the opportunity to mention the ANPSA website (www.anpsa.org.au), the operation of this being one of the other roles that they undertake. This website has an enormous amount of information relating to Australian plants. For example, it holds many hundreds of Study Group newsletters extending back over many years. These newsletters are also readily searchable, making it very easy to gather information on a particular subject. Some 167 Acacia Study Group newsletters are available on the website, dating back to 1961, the year in which our Study Group was established (which must mean that we celebrate our 60th birthday this year)!

In relation to more mundane matters, our Study Group's financial statement for the year ending 30 June 2020 is included on page 11 of this newsletter.

And finally, thank you to those members who have already renewed their memberships for the 2020/21 year. If you have not yet renewed your membership, it would be appreciated if you could attend to this. Details regarding membership renewal are shown on page 11.

Bill Aitchison

Welcome

A special welcome to the following new member to the Study Group.

Anne Keaney, Stanwell Park, NSW

From Members and Readers

Thanks to **Ken Smith (Winmalee, NSW)** for forwarding to me a copy of an article that appeared in the Blue Mountains Gazette (16 December 2020) regarding a project being undertaken by Year 9 students at Blaxland High School that involves sending wattle seeds into space. The article notes that the seeds are being sent to the International Space Station, returning to the school six months later alongside seeds that haven't left earth.

The wattle seeds that have been used in this project are of *Acacia pycnantha*.

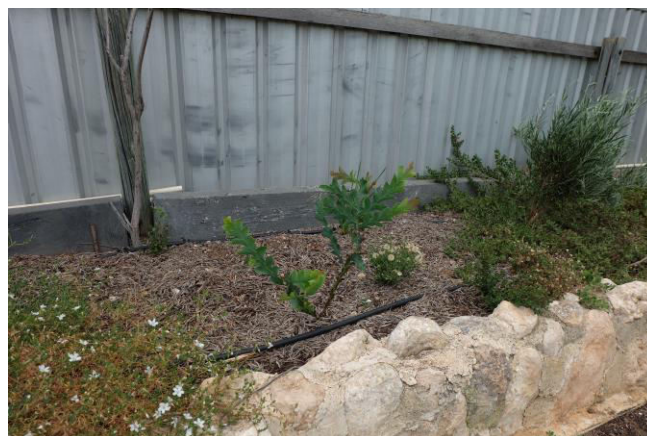
A number of schools are participating in the project. In the case of Blaxland High School, the students' intention is to grow the seeds when they return to earth, and then to plant them in the school grounds where they currently have very few wattle trees.

Sean Walsh has drawn attention to a recent report prepared by the Commonwealth Department of Agriculture, Water and the Environment that lists plant species requiring management intervention after the recent bushfires. The list of species includes 31 species of *Acacia*. Sean comments that he hopes they receive the attention they deserve.

The report can be downloaded at <https://www.environment.gov.au/biodiversity/bushfire-recovery/priority-plants>.

In our previous newsletter No. 148 a question was raised as to whether plants of *Acacia glaucoptera* grown from seed will be of the same form as the parent plant. **Lib Bartholomeusz (Moonta Bay, SA)** commented (17 December 2020) as follows:

"I also really like this plant especially the prostrate form, and have propagated it from seed and from cuttings. We have grown several of them each year from prostrate seed and they have always been low growing except for last year. The specimen in the photo (below) seems to be determined to grow upwards! Just when we have a spot for it to drape over. The *Acacia glaucoptera*, like *Acacia maxwellii*, only last 4 or 5 years in our garden, but we just replace them when they give up on our very alkaline soil."



Acacia glaucoptera

Photo Lib Bartholomeusz

Nicky Zanen (Boronia, Vic) passed on a report she came across of eight critically endangered swift parrots feeding on buds and flowers of *Acacia pycnantha*, near Stawell, Victoria. Nicky was advised that the swift parrot is one of the very few parrot species to use any wattles as a food source but they are not reliant on wattles. Nicky understands the use of wattles is supplementary to their normal food requirements of nectar, pollen, buds and lerp. The sighting near Stawell was last August.

Jan-Willem Vos (France) commented as follows following Judy Clark's reference to *Acacia acinacea* in our previous newsletter No. 148:

"Reading through the newsletter 148 (page 2), I wish to inform Mrs Clark about *Acacia acinacea* and others. We see every year some *Acacias* of the dryer parts of Australia adjust to their water uptake possibilities and development of their root systems. The behaviour has several degrees of severity, going from just dropping leaves to resprouting from lower parts of the structure and finally resprouting from the base. Mostly this behaviour does not occur with taxa from the more humid microclimates, they will just die."

Judy Clark (East Sussex, UK) was recently asked a question by someone as to the role of smoke in germination of *Acacias*. Her response was that they don't need smoke to germinate, just heat, except for a few that don't need heat. She then realised that she doesn't actually know whether smoke plays a role or not. Can anyone add anything to the

question as to whether smoke has any role, without heat, and/or in conjunction with heat?

John Boevink (Port Sorell, Tas) has been busy in his efforts to propagate a number of Acacia species, with seed both from our Study Group seed bank and some collected from his own property. He notes that his best results this year were by germination in general purpose seed raising mix after standard hot water treatment, but he is still trying to find an “optimal” approach to the problem.

He notes that his results vary from year to year eg some relatively fresh seed from his own site showed unimpressive germination this year after doing well in earlier years. He also finds that there is variability in commercial potting and seed growing mixtures.

John keeps records of his germination data for each species. Some species where he has had reasonable to good rates of germination are *A. attenuata* (100% germination), *A. covenyi*, *A. fimbriata*, *A. pendula*, *A. pubescens*, *A. rheticarpha*, *A. saligna* and *A. subulata*. Other species where he has had disappointing results are *A. acuminata*, *A. aphylla*, *A. gladiiformis*, *A. cultriformis*, *A. imbricata* and *A. montana*.

John also refers to the damage to his seedlings caused by thrips. He commented as follows:

“Damage by thrips has widely varying effects. Thrips are very difficult to avoid. *A. fimbriata* seedlings responded badly to fly-spray.”

And in a separate note, he wrote as follows:

“Re thrips: I used general home fly-spray we happen to have. But in view of the setback of *A. fimbriata*, I did not do it again. I used fly-spray in earlier years and did not notice damage to seedlings at the time, which is not to say there wasn't any. The thrips may have come from indoor plants, since my seedlings do better with more uniform temperatures and we have a suitable location for them. The inside Acacia seedlings have been a feature of our house for several years now. But thrips are also present in the greenhouse, that also gets used for seedlings. Unfortunately, the damage thrips do is undeniable, especially in the early parts of germination.”

John also refers to the effect of wallabies on his Acacias. He notes that he has a lot of wallabies that both live at his place and visit. All small plants live in cages in fenced areas. He has noticed that the wallabies are quite fond of *Acacia paradoxa*, picking off the small leaves from between the thorns, like giraffes browse thorn trees in Africa. One of John's plants now about 1m wide and 70cm tall recovered a lot after receiving renewed cage protection – but another plant died which made John realise there is this problem. Incidentally, John notes that he did have these plants

incorrectly recorded as *Acacia acinacea* (having come from APS seed labelled as such a few years ago, although not necessarily Study Group seed).

Peter Goldup (Mt Evelyn, Vic) has continued his work in developing some new Acacia hybrids. He wrote as follows (22 October 2020):

“This winter some of my new hybrids flowered for the first time. What I am striving to do is get the genes of dwarf forms I have in my garden of several known Acacias into other species and to get more pink to red flowering forms crossed with the genes of my all year round flowering form; I have been partially successful.

I also this year have some very interesting forms of dwarf *floribunda* including a possible prostrate form, time will tell and some new dwarf gold leaf forms. I have hundreds of seedlings this year.

I have now several new pink forms at least three metres high. I am still after pink dwarf forms; it will happen!”



One of Peter Goldup's hybrids that he is working on Photo P Goldup

In a subsequent note (27 January 2021), Peter wrote as follows:

"I am working 'at the moment' mainly with *baileyana*, *floribunda*, *pravissima*, *cognata*, *howittii* and *boormanii*. Along with them I am also striving to get some of the genes of my unknown hybrid, which with the milder weather has not stopped flowering all year. I have several new seedlings of this plant as well into some of the dwarf forms of these new seedlings, which are crosses of these plants, all of them dwarf forms. I have a lot of new forms this year; particularly various *cognata* x *floribunda* forms. In the main a mixture of dwarf *floribunda* and *Acacia cognata* 'Bronze Cascade', some closer to *floribunda*, others closer to *cognata*, have already planted out a couple of the more vigorous dwarf ones; some could be prostrate? Also some interesting dwarf *pravissima*, multi coloured and some growing very tight and upright.

I have several new pink forms from last year, which are a little large and leggy and what I want is dwarf pink forms that flower for a long time. They are seedlings linked to my 'Twilight Glow' which is a *howittii* x *leprosa* form."

More on *Acacia sertiformis*

In our previous newsletter No. 147, we included a photo taken by **Ivan Margitta** of a plant growing at Maranoa Gardens in Melbourne's east, which had been tentatively identified as *Acacia sertiformis*.

Following our newsletter, I am grateful to **Dr Phillip Kodela** who had a look at Ivan's photos. Phillip commented that this is a very difficult group that was unravelled in a 1996 paper by Barry Conn and Terry Tame (which made use of Terry Tame's extensive field work and eye for detail in *Acacia*, and Barry Conn's taxonomic work).

Phillip applied the key in the paper to Ivan's photos, and his conclusion was that the "best fit" appears to be *Acacia sertiformis* (assuming that the flower head colour is going to be yellow rather than cream). Phillip noted that the orientation of the phyllodes is right for *A. sertiformis* as is the large number of buds in the flower heads. It is noted that in the key the flower colour and the base of the phyllode are useful for identification of species in this group and these were not clear in the images provided. Phillip observed that the geographic range is sometimes useful for this group but obviously we don't know that with a cultivated specimen (unless we know the wild source of the seed). Looking at the description the branchlets can be hairy in *A. sertiformis* and hairs on the phyllode margin fit. The phyllodes are not grey-green to blue-green and glaucous as described in the protologue. But the best fit appears to be *A. sertiformis*.

We passed Phillip's comments on to Andrea Dennis from Maranoa Gardens (who had tentatively keyed the species out as being *A. sertiformis*). Andrea advises that she has now marked the plant name on the Gardens stocklist as

"confirmed". (Andrea comments that her most recent wattle identification at Maranoa relates to keying out some of the former *Acacia retinodes*. She is not confident she has the right answer, but she thinks some of the plants at the Gardens are *A. provincialis*, based on the trunk colour. She notes that the real difference seems to be that one grows in dry conditions, the other wet. The plants at the Gardens are quite old, and would have come in as *A. retinodes*).

Reference:

Conn BJ and Tame TM 1996. A revision of the *Acacia uncinata* group (Fabaceae – Mimosoideae) *Australian Systematic Botany* 9(6) 827-857

Wattles at Maranoa Gardens

by **Bill Aitchison**

Maranoa Botanic Gardens is located in the eastern Melbourne suburb of Balwyn and is managed by the City of Boroondara. It was opened to the public in 1926, and now covers an area of 2.6 hectares.

It has an extensive collection of Acacias, with about 240 different species to be found in the Gardens. The *Acacia* collection has increased significantly in recent years and some plants are still relatively young, but there are also many well established and older specimens.

I hope that the following article, on *Acacia binervia*, will be the first of a number of such segments in our Study Group newsletter.

Acacia binervia

One of the outstanding wattles at Maranoa Gardens is a specimen of *Acacia binervia*, located near the eastern gates to the Gardens and on the edge of the main lawn area. **Andrea Dennis**, who is currently Horticultural Specialist at Maranoa, advises that this was planted in 1994 by Ian Smith, the then Head Gardener. Andrea suspects that it would have been a purchase from Kuranga Native Nursery, who were the main supplier to the Gardens at that time. At the time it was purchased, it came to the Gardens as *Acacia glaucescens*.

According to Flora of Australia, this species is a shrub or tree to 15m high. The plant at Maranoa is not this tall, it is about 8m high, but at its greatest width it is about 15m across.

The Gardens staff do keep the plant trimmed so as to frame a sign which is close by (see photo below).



Acacia binervia at Maranoa Gardens – framing the sign
Photo Bill Aitchison

The bluish grey foliage is always attractive, and the golden yellow rod like flower heads are quite magnificent when the plant flowers, generally in October. Andrea comments that “everybody that looks at that wattle when it is in flower says ‘Oh wow!’”



Acacia binervia at Maranoa Gardens Photo: Ivan Margitta

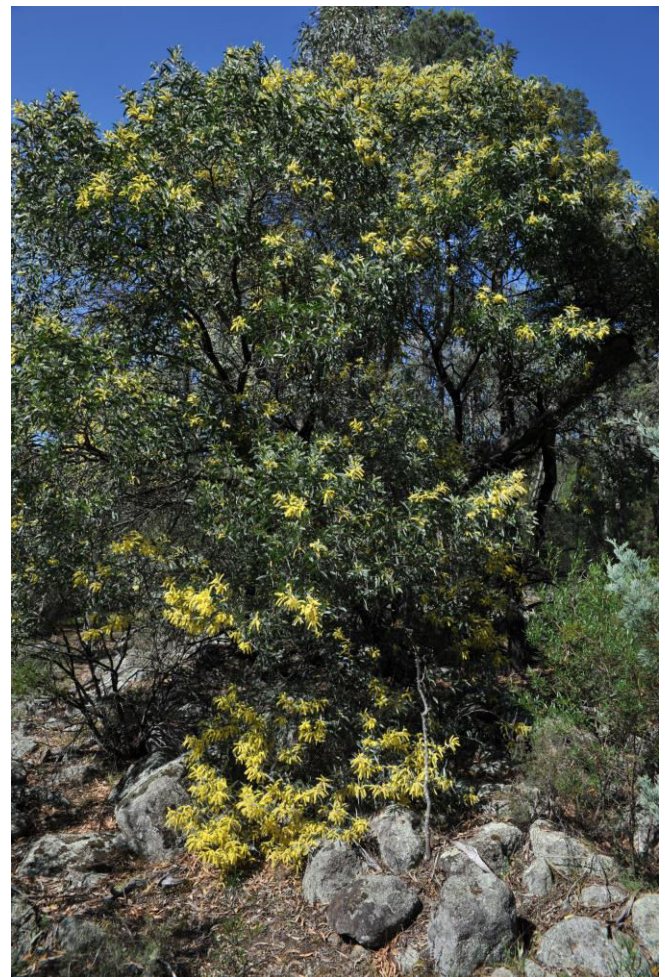
Interestingly, in a recent episode of the ABC Gardening Australia program (6 November 2020), it was noted that “For the D’harwal people of Port Jackson, the blooming of the Kai’arrewan (*Acacia binervia*) signifies the warm, wet season of Parra’dowee and means fish are moving into bays and estuaries.”

The main natural occurrence of the species is in NSW, with a limited occurrence in Victoria, in the upper Snowy River area. In NSW, it is common on the coast, central tablelands, and central western slopes, also on the southern tablelands inland from Bega.

There are some interesting aspects to this species. Firstly, deaths have been reported in livestock which have eaten its leaves. Currently, one of my favourite television shows is a Canadian murder mystery series, Murdoch Mysteries. On

the day I started writing this note on *A. binervia*, I watched an episode where a murder occurred in which the victim was injected with a lethal dose of prussic acid, and died within minutes. This is the same poison responsible for the deaths in livestock that have eaten *A. binervia*. Although the plant contains none of this chemical, its leaves do contain cyanogenetic glycosides which can break down in the stomach of animals that eat the foliage, producing prussic acid.

I referred above to the plant’s limited occurrence in the upper Snowy River area in Victoria. **Alan Gibb** tells me that there is only one plant there, and in fact this single plant is the only naturally occurring example of the species to be found in Victoria. That plant is about 4-5m high, and 3m wide. Alan has searched on a number of occasions, but has never found any recruitment of young plants nearby. He has attributed this to being part of the damage caused by large numbers of wild horses in the area, although given the toxicity of the plant he now wonders if there may be another explanation. He wonders whether, because there is only a single plant, the seed that it produces may not be viable (the plant does produce seed).



Acacia binervia – a photo of the only naturally occurring plant in Victoria, photo taken by Alan Gibb in October 2013

Another interesting aspect of this species is its name, *binervia*. This refers to the phyllodes having two nerves, whereas in fact the phyllodes usually have 3-5 main nerves.

From South Australia

In the recent November 2020 issue of the APS South Australia quarterly journal, there was an article by **Ken Warnes (Owen, SA)** relating to a trip he made to Eyre Peninsula. In that article he referred to a previous article that he wrote in 1971 on the subject Chasing Acacias, in which he reported on a trip around Eyre Peninsula with a focus on Acacias.

Ken has given permission for this 1971 article to be reproduced in our newsletter. The article that appears below does incorporate some alterations and additions that Ken has made to the original.

Ken notes that he is not growing a lot of Acacia species at the present time (his main interest is Eremophilas), but he notes the following that he is growing:

“I try to keep *A. imbricata* in my plantation, it really is a gem and *A. pinguifolia* hangs on for many years and is always something a bit different. *A. rheticarpa* is a must and I have a seedling of *A. whibleyana* having previously grown it from cuttings. *A. gillii* finds our summers a bit dry once the establishment dripper is disconnected but I'm trying again. I still refer to the one west of Kimba as *A. euthycarpa*. It is a really attractive species. *A. cretacea* grows remarkably well for me and is one we didn't look for as its presence was not known back then. I haven't seen that stray *A. gracilifolia* north of Mambray Creek for years, the seed must have washed down following a storm and it found things a bit dry where it ended up. In general, here at Owen, 10 years sees out a lot of the smaller species, borers being a common problem.”

In a subsequent note, Ken commented on some species which can be difficult to distinguish from each other:

Acacia calamifolia* and *A. euthycarpa – Years ago Ken took some (now poorly coloured) prints of a wattle in the Yandinga Hill area west of Kimba which he now believes to be *A. euthycarpa*. On the back of the prints he had written *A. calamifolia* Gawler Range form, but he notes that these have flattened phyllodes and a central stem resulting in a small weeping tree which can be very attractive.

Acacia toondulya* and *A. notabilis – These species are closely related. Ken notes that there is a theory that *A. toondulya* converted to a taller shrub to escape the wallabies etc. It grows in a small select rocky area (good for wallabies?) and there is no *A. notabilis* in the immediate area although he has photographed a 3m high “Which one is it?” on the main drive in to Kondoolka Station.

Acacia rotundifolia was grouped in with *A. acinacea*. However, Ken finds this questionable, noting that he has an *A. acinacea* and an “*A. rotundifolia*” regenerating 1 metre apart in his Scrub, post Pinery fire.

Ken also refers to a stiff needle leaved Acacia which grows on top of the granite hills in the central part of the Gawler Range which is lumped in with *A. rigens*. But it is very different to *A. rigens*, as it is found on sand-hills in their mallee region.

Chasing Acacias on Eyre Peninsula

by Ken Warnes

“Whose crazy idea was this?” was the accusing greeting as the alarm summoned Bruce Copley and me from our beds at 4 am on September 14th 1970. “Well, you say we have to be in Port Lincoln by 1 pm and if I don't have time to find *Pultenaea tenuifolia* between Cowell and Arno bay there's going to be BIG trouble” was my reply.

And so, as the first light appeared in the sky we set off for our appointment with Dr. Mary Tindale, from Sydney, to assist in field collections for her study of the genus Acacia. Dr. Tindale is working on a revision of the genus and had already collected extensively in W.A. The previous week Bruce had accompanied her through the Mid-North areas collecting such species as *A. wattiana*, *A. salicina*, *A. brachybotrya*, *A. pravifolia*, *A. hakeoides*, *A. notabilis* and various forms of *A. pycnantha*, *A. ligulata* and *A. calamifolia*. Now we were to cover Eyre Peninsula, with special attention to the Port Lincoln-Cummins area.

Our first collection of note was *A. gracilifolia*, a lone specimen growing in the first water-course north of Mambray Creek. It seems amazing that this species was not collected for so many years, for although endemic to the Lower Flinders Ranges it is relatively common in this area, especially around Hancock's Lookout near Wilmngton. *Sida virgata* waved gracefully in the low-lying areas but generally it was very dry. Eremophilas were still able to flower and as we travelled on past Port Augusta and Whyalla we saw *E. alternifolia*, *E. scoparia* and *E. oppositifolia* in bloom, while *Cassia* (now *Senna*) *sturtii* and *C. nemophila* were at their magnificent best. Then 31 miles south of Whyalla a low granite rise was covered in *Triodia irritans*, *Eucalyptus oleosa* and a low grey-foliaged wattle, *Acacia wilhelmiana*, the broad leaved form, the first time either of us had seen this particular form. (Perhaps now part of *A. ancistrophylla* ssp *lissophylla*, perhaps something quite separate.)

As we proceeded southwards light rain began to fall. This was to continue all morning, but even this couldn't diminish the impact of the “Chindoo”, *Eucalyptus brachycalyx* which brightened the roadside with its masses

of rusty-red buds. *A. sclerophylla* and var. *lissophylla* (not to be confused with the earlier collection), *A. colleteoides* (now more likely *A. nysophylla*) and *A. rhigiophylla* were collected but the rain made sighting difficult. A plant to catch the eye as it spread over the sandy cuttings was *Commersonia tatei*, a delightful member of the family *Sterculiaceae*, which although apparently unknown in cultivation would grace any rockery or bank with its tiny notched foliage and starry pink and white flowers.

The roadside vegetation between Cowell and Arno Bay is protected for the last 12 miles – no *Pultenaea* collecting here, and is one of the three known locations of *A. rheticocarpa*, the others being Pine Point and Monarto South. This little wattle is surely one which must gain favour in our gardens and its neat foliage, compact growth and masses of brilliant yellow blossom were a common sight. *A. continua*, *A. spinescens*, *A. calamifolia*, *A. notabilis*, *A. hakeoides*, and *A. microcarpa* were other wattles along this section. Pink *Boronia inornata*, blue *B. coerulescens*, *Lasiopetalum behrii*, *Dillwynia uncinata*, *Halgania andromedifolia*, *Solanum capsiciforme*, a big bushy *Calotis* spp, *Eremophila glabra*, *Baeckea crassifolia*, *Eucalyptus socialis* and *E. flocktoniae* (now *E. peninsularis* sp nov and I now doubt this location) all occurred frequently, while *Prostanthera aspalathoides* as well as both red and green flowering forms of *P. microphylla* were seen during a quick dash ahead of the car as Bruce carried out his collecting work north of the protected area.

Then just south of Arno Bay, “THIS IS DEFINITELY THE LAST STOP BEFORE PORT LINCOLN” I found it, *Pultenaea tenuifolia*, and just as colourful as I remembered it to be from a previous trip, growing with *Aotus ericoides* another legume I had hope to find. Both these plants have brilliant orange and red pea flowers, *Aotus* being the more showy of the two. Why don't we use these “egg and bacon” type flowers more as they would add colour to any garden?

A. enterocarpa was collected near Port Neill then as we neared Port Lincoln *A. pycnantha* re-appeared and we also saw the first specimens of *A. gillii* and *A. acinacea*.

By the time we met Dr. Tindale and her mother the rain had stopped so we moved to the fore-shore at Kirton Point where a dense mixed population *A. dodonaefolia* and *A. armata* (now *A. paradoxa*) had resulted in several natural hybrids between the two species. *A. anceps* was found nearby, then on a quick trip to Sleaford Bay we added *A. sophorae* and *A. myrtifolia*. Among other plants of note were *Leucopogon australis*, *Lasiopetalum discolor* and *L. schulzenii*.

Next morning saw our two vehicles taking the Cummins road and although we were searching for acacias it was impossible to ignore the many other plants abounding. *Hibbertia paeninsularis* was found at its only known location near Coomunga, growing with *Stackhousia*

monogyna and *Lomandra glauca*. A few miles further on we stopped to show our guests the southern form of *Grevillea ilicifolia*. This form has insignificant pale-yellow flowers but we found a variant with heart-shaped leaves bearing little resemblance to holly. The gay white “milkmaids” *Burchardia umbellata*, *Dillwynia hispida*, *Goodenia robusta*, *Darwinia homoranthoides*, (another good ground cover), *Drosera planchonii*, *D. glanduligera*, (a species which forms a wheel-like rosette with an insect-trapping cup at the end of each “spoke” and *Hakea rugosa* were found here while *Halgania cyanea*, *Dampiera rosmarinifolia*, *Scaevola linearis*, *Boronia coerulescens* and *Chamaescilla corymbosa* provided five different shades of blue growing in tangled profusion. A few specimens of *A. farinosa* added yet another to the steadily growing list.

On towards Wanilla we drove, past blocks of naturally occurring “Sugar Gum”, *Eucalyptus cladocalyx*, which were generally stunted, twisted specimens in this area. Then in a damp, gravelly area we saw a group of *Calytrix tetragona* of the beautiful, deep-pink colour found in our southern districts. A mass of flaming orange next caught our eye and was identified as *Pultenaea acerosa* while *Hibbertia sericea* var. *scabrifolia* was studded with dozens of large brilliant yellow blossoms. *Adenanthos terminalis*, *Astroloma conostepheoides*, a *Leucopogon* sp, blue, pink and white colour forms of *Dampiera rosmarinifolia*, and *Pultenaea pedunculata* were all seen, then as we explored further we were most impressed by many “Donkey Orchids”. *Diuris longifolia*, growing to a height of 18 inches over areas up to 5 yards across. A large patch of pink *Caladenia carnea* and “Spider Orchids”, *Caladenia* sp, completed an enchanting scene.

The Wanilla-Knott's Hill road enabled the collecting of the “Balm Wattle” *A. rupicola*, and a variant of *A. armata* while *Pultenaea canaliculata* var *latifolia* and *P. teretifolia* both added to our rapidly growing respect for the genus *Pultenaea*. *Banksia ornata*, *Conospermum patens*, *Kennedia prostrata*, and a double-flowered *Boronia coerulescens* were all worthy of note. *Acacia gillii* was a fairly common sight in the open areas, a lovely graceful, weeping species well worthy of a trial when an open oriental effect is desired. A slight suckering tendency should present no major problems.

Between Wanilla and Edillie some areas of alternating swamp and scrub proved irresistible. *Melaleuca decussata*, and *Callistemon macropunctatus* grew in the swamps while skirting the edges was *Grevillea parviflora*. This was a most beautiful shrub, its fine, slightly prickly foliage formed a dense bush four feet high and eight feet across, and the massed clouds of pink flowers would place it on the highly recommended list for an acid garden. *Daviesia* species, including *D. pectinata*, *D. polyphylla*, *D. incrassata* and *D. genistifolia* were scattered throughout, while the smoky-blue of *Scaevola linearis* was a constant joy.

As we moved into drier country *Acacia pinguifolia*, the “fat-leaved wattle” appeared, a far more attractive shrub than I had expected. Growing to 4 feet high its arching branches appeared as long golden rods. This little wattle “disappeared” in 1930 until collected again near Finniss in 1965 by Dr E.B.Sims and Sir John Cleland. Then when the new road to Cummins was built large numbers of plants came up in the disturbed soil and are now thriving, another example of road-works freeing up the soil seed-bank. *A. imbricata* next made its appearance, another graceful, free-flowering shrub and one of my favourites. The dominant mallees included *Eucalyptus flocktoniae*, *E. angulosa*, *E. dumosa* and *E. fruticetorum*. (There’s been some name changes in that little group, every one of them.)

North from Cummins several new plants made their appearance among them *Phebalium pungens*, (a lovely dwarf), *Eremophila behriana* (a vigorous form, suckering freely) and *Olearia ciliata* making its customary mauve mounds. *Eucalyptus calycogona* in full flower and *E. foecunda* in heavy bud had replaced the earlier mallees with the exception of *E. flocktoniae* which was still common. Proceeding as far as Yeelanna we then turned back towards Ungarra, recording *Hibiscus* (now *Rhadyera*) *huegelii* and *Templetonia retusa* and collecting *A. anceps* and *A. imbricata* which was at its very best in this area. *A. pinguifolia* was still with us and several interesting variants, including possible hybrids of *A. anceps*, *A. microcarpa*, *A. calamifolia*, and *A. havillandii* were collected but Bruce searched in vain for a specimen of *A. lineolata* that he had seen the previous year. Bulldozer tracks told their own story. The grey-foliaged form of *Melaleuca lanceolata* bordered the roadside around Ungarra, then as we moved on towards Tumby Bay, Bruce collected specimens of an *Acacia* in the *A. enterocarpa* group which it has since been suggested could be a new species. *Eucalyptus leucoxydon* var *macrocarpa* grew at this site, a form in which the buds and fruits were strongly 5-angled from base to tip. (This is now *E. petiolaris* sp nov)

Shortly after this we farewelled Dr. Tindale who was returning to Port Lincoln well-laden with pressed specimens and blocks of heart-wood for the study of cell structures.

The following morning our wanderings took us through some upland heath country between Yallunda Flat and Ungarra, an area filled with lovely plants. *Grevillea parviflora* was again with us, growing beneath presumably naturalised specimens of *Acacia mearnsii*, then *Grevillea aspera* became a common sight. This outstanding shrub has broad, leathery leaves and large racemes of red and cream flowers. *Phebalium bullatum*, *Thryptomene ericacea*, a yellow *Pimelea* sp, *Lasiopetalum baueri*, *Dampiera rosmarinifolia*, and various *Pultenaea* spp transformed the roadside into one long garden. Then masses of the delicate *Eriostemon brevifolius* appeared and a rusty *Pomaderris* was seen among more unusual forms of *A. calamifolia*.

Gradually the country changed to limestone heralding the return of *Boronia inornata* and *Olearia picridifolia*. *Daviesia pectinata* was a curious plant with its bizarre foliage consisting of a series of vertically-flattened, acute-angled triangles and the strong, heady odour of this plant (not the flowers) saw it rapidly confined to a heavy plastic bag. *Eucalyptus incrassata* and *E. rugosa* indicated a further change in mallee types and *Scaevola myrtifolia*, one of the shrubby members of the genus, grew beneath them.

The alkaline sands near Wharminda revealed their own group of plants including *Baeckea crassifolia*, *Commersonia tatei*, *Microcybe multiflora*, *Thryptomene miquelliana*, *Dampiera lanceolata*, *Scaevola aemula*, (sprawling over a large area) and *Pultenaea tenuifolia* (including seedlings) as well as *Acacia rigens*, *A. farinosa* and *A. euthycarpa*. (The latter is now included under *A. calamifolia*, a placement that leaves me uncomfortable.) A mass of bright pink flowers on one *Eucalyptus calycogona* made it a feature and at last *Grevillea ilicifolia* reverted to the red flowered form while *G. huegelii* made its appearance.

We called on some friends of Bruce a few miles from Wharminda and were taken to a hill rising behind the house. Typical sand-hill flora appeared and such plants *Exocarpus sparteus*, *Melaleuca uncinata*, *Leucopogon cordifolius*, *Comesperma scoparium*, *Calytrix involucreta*, a grey *Spyridium* sp and a white *Helipterum* combined with many of those listed earlier to make a glorious display.

Eremophila subfloccosa and *Olearia muelleri* indicated a further change in country as we drove northwards to intersect the Cowell-Cleve road to collect the true *Acacia wilhelmiana*, a fine leaf form which occurred here as dense bushes with scabrous, sticky leaves with a hooked mucro, showing little resemblance to the plant collected south of Whyalla. Through Cleve we drove to find the grey gums around Darke Peak. Some confusion surrounds the true botanical position of these trees, formerly they were thought to be a glaucous leaf form of *Eucalyptus rugosa*, but they are currently included with *E. clelandii* which is otherwise confined to the Eastern Goldfields in W.A. In the thickets they were spindly and stunted but individuals in the open were robust, shapely specimens growing to 30ft high. (Subsequent revision has named them *E. cretata* sp nov, endemic to central-eastern Eyre Peninsula.)

The road led on past the northern edge of Hambidge Conservation Park as we progressed to meet the Eyre Highway west of Kimba to collect an *Acacia* “drooping over the 40 mile post” This wattle was growing on several nearby sand-hills and to date it had not been officially identified. (It is close to the true *A. euthycarpa* and that’s what I still call it.) The presence of suckers and flowering habit reminded me of *A. retinodes* but this suggestion brought forth muttered comments of “amateur” from Bruce. Certainly it is an attractive small weeping tree and could if introduced to cultivation in sandy areas serve a similar

purpose to that earlier suggested for *A. gillii*. No trip to Kimba is complete without *Hakea francisiana* and we saw several flowering specimens growing in conjunction with *Callitris verrucosa* on the sand-hills.

Yellow and white *Helipterum* spp grew in profusion along one section of road as we returned to Hambidge for the night. *Eremophila weldii*, *E. subfloccosa*, *Olearia rudis*, *O. floribunda* and *Westringia rigida* grew near the camp while just across the road *Acacia merrallii* added yet another.

It was good to be moving in the morning as the frost had reached the roof of the car. The drive through undulating mallee country towards Waddikee was having a soporific effect until, as we drove through a slight depression we casually glanced at a small group of thick, blue-foliaged mallee quite unlike any others we had seen on this trip. Instant awakening! There was something about their low dense growth and the fact that they grew in a clearing in a low-lying spot that reminded us of Yalata 1969. Sure enough, closer investigation them to be *Eucalyptus oleosa* var *peeneri* (now *E. yalatensis*), the tree which had prompted our expedition to Ooldea the previous year. Seed and Herbarium specimens were collected from this isolated group, then we continued on through Waddikee to Kimba with the occasional *Hakea*, *Phebalium* and *Thryptomene* joined by *Leptospermum coriaceum* to brighten the way. West of Kimba a very large-growing form of *A. calamifolia* was collected, then *A. papyrocarpa* and *A. burkittii* just before the Flinders Highway junction.

At Port Augusta the decision was made to locate, if possible, *A. quornensis*, a little known species, so we drove through the Pitchi-Ritchi Pass to Quorn to enlist the aid of Mrs. Wells, a local enthusiast, who offered to guide us to one of the isolated pockets in the hills where this wattle exists. Travelling a few miles north, then west along a rough station track, we eventually rounded a bend to see before us a whole area of umbrageous shrubs from 6-8ft in height. Obviously in the *hakeoides-wattsiana* group, *A. quornensis* made neat bushes and their numerous silvery seed-pods shone in the sun as the breeze stirred among them. A secluded little spot and one that would not see many visitors.

The journey south was broken for the collection of *A. watsiana* and *A. pravifolia*, while in the Beetaloo Valley we saw an outstanding specimen of *Logania vaginale*.

So we returned home from a highly successful journey where the wealth of flora, ranging from the shy to the spectacular, brightened many a mile. Perhaps it lacked the excitement and adventure of previous expeditions but with the collection of 39 named *Acacia* species, two named varieties, many variants of *A. calamifolia*, *A. ligulata*, and *A. microcarpa* plus those three unidentified species between Whyalla and Cowell, Ungarra and Tumbly Bay and west of Kimba we have certainly provided work for Dr.

Tindale and other botanists, which may eventually unravel some of the mysteries of the wattles of Eyre Peninsula.

AUTHOR'S NOTE: The specific names used in this article are as accurate as current knowledge permits but the position of some wattles is certain to be altered when scientific revision of the genus *Acacia* is completed. The true position of many of the wattles on Eyre Peninsula is obscure, this is therefore not a scientific article but an attempt to share a happy journey with you. Since writing the article I have been made aware of another probably new species south of Tumbly Bay (*A. whibleyana* sp nov.) to emphasize once again the complexity of the genus.

Books

Plants of Subtropical Eastern Australia By Andrew Benwell CSIRO Publishing 2020 Paperback, 379 pages, RRP \$49.99

This book describes the flora of the north coast of NSW and coastal south-east Queensland. More than 500 plants are featured, with photographs and descriptive features enabling the reader to identify different species. Interesting biological, cultural and historical characteristics of each species are included, and distribution maps. The species included in the book are grouped according to the vegetation habitat where they are found.

Of the plants featured in the book, there are 18 *Acacia* species, as follows (also shown is the habitat where they are found).

Frontal dune: *A. sophorae* (I assume this should be *A. longifolia* ssp. *sophorae*)

Wallum heathlands: *A. suaveolens*, *A. ulicifolia*

Wet heath: *A. elongata*

Shrubby dry sclerophyll forest: *A. quadrilateralis*, *A. myrtifolia*, *A. baeuerlenii*, *A. terminalis*

Grassy dry sclerophyll forest: *A. concurrens*, *A. fimbriata*, *A. floribunda*, *A. disparrima* ssp *disparrima*,

Wet sclerophyll forest: *A. melanoxylon*, *A. irrorata*, *A. binervata*, *A. orites*

Sub tropical rainforest: *A. bakeri*

Montane heath and rocky outcrop: *A. hubbardiana*,

Wattles of the Granite Belt and surrounds By Stanthorpe Rare Wildflower Consortium 2020 Paperback, 170 pages, RRP \$30

This book features wattles growing on the Queensland part of the Stanthorpe Plateau and surrounding areas. It provides information on about 60 wattles. It would be a useful guide

to anyone visiting the area and wanting to identify the local wattles.

Indigenous Plant Use: A booklet on the medicinal, nutritional and technological use of indigenous plants

By Zena Cumpston

Clean Air and Urban Landscapes Hub, The University of Melbourne 2020

Free download at

<https://nespurban.edu.au/wp-content/uploads/2020/08/Indigenous-plant-use.pdf>

This 44 page booklet provides information about indigenous plant use, developed over many millenia, and mainly covering widely available eastern Kulin Nation plants and some edible plants that can be grown successfully in multiple Australian climates.

Information is provided in relation to four Acacia species, being *A. stricta*, *A. acinacea*, *A. implexa* and *A. melanoxylon*.

The booklet includes a long list of references for those interested in seeking further information.

Miscellaneous Items

In the Ballarat Courier of 14 January 2021, Roger Thomas responded to a reader query regarding “small white balls” on an *Acacia howittii*. The reader provided a photo (the link to the article with the photo is

<https://www.thecourier.com.au/story/7084054/nature-notes-little-suckers-hanging-out-to-get-their-wings/>).

The reader’s query was as follows:

“Can you identify these small white balls on the plant in the photo? The balls of fluff appear to be made of a spider web material and cover almost the entire leafy parts of the plants.”

Roger Thomas’s response was as follows:

“These are cottonwool mealybugs. There is a dull reddish very swollen small insect under each cluster of woolly webbing.

They are native insects, mostly found on wattles. The pictured plant is sticky wattle, a mealybug favourite, but they also occur on native wattles too, like hedge wattle and prickly moses.

Mealybugs belong to the same group as scale insects. They are sap-suckers.

They hardly move once they have a suitable spot on a plant, where they suck sap and swell like a tick or small leech underneath their protective webby “cottonwool” covering.”

In my garden, I believe that we have very occasionally had similar white balls on one or two of our Acacias, but I probably have not recognised them for what they are. I note that in the book, Pests, Diseases, Ailments and Allies of Australian Plants (Jones, Elliot and Jones), Cottonwool Mealybug is referred to as a species *Erium globosum*, for which host plants are species of Acacia, both garden grown and wild plants. I assume that this is the species referred to in the Ballarat Courier article. But perhaps Study Group members could provide their own experiences with Cottonwool Mealybug – for example how prevalent is it?

A recent article (13 January 2021) in The Canberra Times by Hannah Moloney referred to the importance of bees for pollination, and of choosing plants for our gardens with suitable flowers that will provide an abundant and reliable food source for bees.

The article noted that bees will fly up to 5km to source food, so even if you don’t have beehives on your property it is still worthwhile establishing plants to attract them.

Suitable species flowering in each season were suggested, which were mainly exotic, but one winter flowering species recommended was *Acacia pycnantha* – apart from providing a suitable food source for any foraging bees, it was also noted as being nitrogen fixing and a quick grower.

Seed Bank

Although we do purchase some seed from commercial sources, we also rely upon donations of seed. If you are able to help with any seed donations they would be very welcome (we would ask you to post any donations to Bill Aitchison, who will forward them on to our Seed Bank Curator, Victoria Tanner). It also helps enormously if you are able to clean, sort and label the seed correctly. Also, we would like to have provenance information for all seed in the seed bank – so if you donate any seed, could you also provide any information you have in relation to provenance.

Our thanks to **Ben and Ros Walcott**, and to **Alan Gibb** for recent donations of seed.

The procedure for requesting seed from the Seed Bank is as follows. Study Group members are entitled to lodge up to 3 orders per member per year, with 10 packets maximum in each order (negotiable). There is a charge of \$4 in relation to each order, to cover the cost of a padded post bag and postage. The \$4 may be paid in stamps or by direct credit to

our Group's bank account. Requests for seed may be lodged in either of the following ways:

1. By email to our Study Group email address, acaciastudygroup@gmail.com (emails to this address go directly to both Victoria and Bill Aitchison). If you make a request by email, you will also need to make the necessary payment by one of the above methods. If you are paying by stamps, these should be mailed to Bill Aitchison, 13 Conos Court, Donvale, Vic 3111
2. By mail (enclosing stamps if required). These requests should be posted to Bill Aitchison (address as in the previous paragraph). Bill will then advise Victoria of the request.

We would like to maintain some data on your results in propagating seed from the Seed Bank. We would therefore ask if you could provide a report on your results, recording information on species, number of seeds sown, number germinated and days after sowing.

Study Group Membership

Acacia Study Group membership for 2020/21 is as follows:

\$7 (newsletter sent by email)

\$10 (hardcopy of newsletter posted in Australia – existing members only)

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).

ANPSA ACACIA STUDY GROUP FINANCIAL BALANCE SHEET 2019-20			
INCOME	Balance at 1.7.19		\$640.08
	Members' subs	\$528.00	
	Donations	\$64.00	
	Seed bank purchases	\$40.90	
	Total Income	\$632.90	\$632.90
EXPENSES	Stationery	\$6.00	
	Printing	\$330.00	
	Photocopying	\$123.00	
	Postage	\$158.10	
	Total Expenses	\$617.10	-\$617.10
BALANCE	Balance at 30.6.20		\$655.88