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:

https://anpsa.org.au/acaciaSG

From The Leader

Dear Members

I think I would be right in suggesting that most of us have been brought up with the simplistic view that there are four seasons in each year, of equal length, with spring beginning on the first day of September. But such thinking does not reflect the real seasonal changes that occur in different bioregions. For the area of Melbourne where I live, a Timelines Calendar was developed a number of years ago (originally being discussed at a meeting of naturalists in 1994). This calendar recognises six seasons, one of which is early spring, from late July to late September. One of the things that characterises this season is stated to be the blooming of more wattles. In my own garden, this is without doubt true – since early August we had many wattles in flower, on one day we counted more than 30 different species in flower. It also seems to have been an outstanding year for flowering. Following early spring, the Timelines Calendar recognises true spring, which covers the months of October and November. This reflects a much reduced period of flowering of wattles, and the only reference that I can find in our local calendar is to the flowering of late black wattle (*Acacia mearnsii*) in October.

Could I make a request? I am currently preparing a presentation on the subject of the relationships between Acacias and wildlife (birds, animals, insects, ants etc). If anyone has any images that could be used in a presentation illustrating any such relationships, or knowledge of particular aspects of these relationships, I would love to hear from you.

Thank you to those members who have provided input to this newsletter. The newsletter relies upon these contributions, whether they be articles or photographs. I am happy to receive contributions at any time, please think about whether you have something you can contribute.

Thank you to those members who have already renewed their memberships for the 2023/24 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 12. If you are unsure of your membership status, let me know and I will check our membership records.

Finally, a note that our Study Group financial report for the year ending 30 June 2023 is on page 12 of this newsletter.

Bill Aitchison

Welcome

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

Judy Allen (Mildura, Vic)
Ms Isis (NSW)
Werner Kutsche (Flinders Park, SA)
Sarah McInnes (Frenchs Forest, Sydney, NSW)
Pina Tiso (Cheshunt, Vic)
Ratnakar Vallabhanen (Mulgrave, Vic)

Werner Kutsche has rejoined the Study Group after a number of years absence. He tells me that he has just planted 4 *Acacia aneura* plants which he recently obtained from the Arid Lands Botanic Gardens in Port Augusta. Some were meant to be replacements for a few which he thought he had lost, but when he went to plant one of them, he found the original buried under a pile of soil which he had excavated from the hole. It had some green shoots on it, so it promptly went back into its original hole. Hopefully the experience wasn't too much of a shock. He has some more mature specimens which were planted ca 20-25 years ago.

Sarah McInnes is a PhD candidate at the University of New South Wales and is currently researching *Acacia pycnantha*. Her research is still in the early stages but she looks forward to chatting to other enthusiasts once some results start coming in.

Pina Tiso notes that APS Wangaratta is planning a stall for Wattle Day in 2024 and they have recently sown seeds of 13 different species, which they hope to have available as seedlings for a stall next year. Pina is keen to learn more about the different species they have sown and plans to put together a summary for each of the wattles sown in their monthly newsletter (1-2 species/issue), so that come Wattle Day next year, their members will know more about the species they are growing and can share this with the public.

Ratnakar Vallabhanen advises that plant research is his passion – I am sure we would love to hear about some of his research relating to Acacias!

From Members and Readers

Helen van Riet (Wangaratta, Vic) advises that Wattle Day was celebrated early in Wangaratta, Vic. On 12th August her local APS Wangaratta Group set up a stall at the Wangaratta Farmers Market.

Helen reports that the weather was slightly drizzly but there were plenty of people browsing their stall and taking packets of Acacia seed that they had packaged up beforehand, and instructions on how to grow them. They gave away 127 packets of seed. They also gave away some hundreds of Wattle Day badges which they made themselves. They had lots of publicity about their Group and particularly about Acacias.

The market organisers had asked them to give a presentation and demonstration on how to grow Acacias from seed, which they did mid-morning with the help of a microphone. The organisers of the market have asked them to come again.

They had a great team of volunteers, and Helen comments that it was a good plan to celebrate Wattle Day in mid August as they had plenty of flowers for display. They also had some left over plants from an autumn market which they gave away (limiting to 3 per family).

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In our previous newsletter (No. 154) I referred to *Acacia holosericea* and asked if anyone could give any advice on how best to grow it (especially in Melbourne). I had one response, from **Anne Keaney** (Stanwell Park, NSW) who provided a photo of it growing at the Wollongong Grevillea Gardens – thank you Anne.

***Acacia holosericea* at Wollongong Grevillea Garden**
Photo Anne Keaney

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Helen van Riet (Wangaratta, Vic) provided a recent photo of her *Acacia havilandiorum*. She notes that this is the first time this little acacia is budding up. **Alan Gibb** gave her the plant as a tiny tubestock about 3 years ago. The kangaroos knocked off the main growing shoot about 2 years ago. Helen comments that Al was concerned that it would not recover – but it has. Helen says that she will keep a watch and send a photo of the flowers when they open.

Note from Editor – Many Study Group members will recall that Alan Gibb passed away in February last year. In the same way that Helen remembers Alan through this wattle that he gave to her, I have also been remembering him recently each time I pass an *Acacia phasmoides* in our garden – a plant that he gave to Sue and me and which this year flowered the best it has ever flowered.

Acacia havilandiorum **Photo Helen van Riet**

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John Luscombe (Menzies Creek, Vic) lives in the Dandenongs in Melbourne's east. He advises that his garden is a work in progress at the moment but eventually he hopes to have a wide ranging display of Australian plants. His conditions are quite cold, but he has good air circulation being on top of a ridge, and good drainage. He is a keen propagator and grower of Acacias and has provided photos of some of the wattles he is growing.

John also advises that he did have a very good *Acacia leptalea* growing until it was destroyed by deer (an ever increasing problem around Melbourne).

Acacia multispicata **is about 1.5m tall by 2m wide, and is about 4 years old.**

Acacia splendens **– John finds it interesting that it doesn't set any seed in his garden whereas in the west he understands that cultivated plants outside its natural occurrence are tending to get weedy in the bush, in some places.**

Acacia browiana **var.** ***intermedia*** **was propagated by John from seeds that came from the South Stirlings district in WA.**

Acacia drummondii **ssp** ***affinis***

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Peter Rogers (Wantirna, Vic) took the following photo on a recent trip to WA. The photo was taken near Leinster. We think it is most likely *Acacia daviesioides* – but would anyone like to agree with this or offer an alternative identification?

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Sheryl Backhouse advises that she has always been a fan of David Murray but could not find any of his work on the ANPSA Acacia website.

Sheryl provided an extensive list of his publications – if anyone would like a copy of this let me know.

There are a number of Acacia articles in this list, including the following:

Specialist Journal Articles

D. R. Murray, W. J. Ashcroft, R. D. Seppelt and F. G. Lennox (1978). Comparative biochemical and morphological studies of *Acacia sophorae* (Labill.) R. Br. and *A. longifolia* (Andrews) Willd. Aust J. Botany 26, 755-771.

W. J. Ashcroft and D. R. Murray (1979). The dual functions of the cotyledons of *Acacia iteaphylla* F. Muell. Aust. J. Botany 27, 343-352.

J. K. P. Weder and D. R. Murray (1981). Distribution of proteinase inhibitors in seeds of Australian Acacias. Zeit. Pflanzenphysiol. 103, 317-322.

D. R. Murray and J. K. P. Weder (1983). Seed proteinase inhibitors of Pulchellae, *Acacia mitchellii* Benth. and *A. alata* R. Br.: Exclusion of *A. mitchellii* from Pulchellae. Aust. J. Botany 31, 119-124.

D. R. Murray and C. M. McGee (1986). Seed protein content of Australian species of *Acacia*. Proc. Linn. Soc. NSW 108, 187-190.

M. C. Shamanthaka Sastry and D. R. Murray (1986). The tryptophan content of extractable seed protein from cultivated legumes, sunflower and *Acacia*. J. Sci. Food Agric. 37, 535-538.

A. B. Bradke and D. R. Murray (1989). Redistribution of amino acids and amides during seedling development in *Acacia iteaphylla* F. Muell. (Mimosoideae; Fabaceae). Proc. Linn. Soc. NSW 111, 37-42.

General Journal Articles and Letters

Acacia sophorae – Studies of *A. sophorae* and *A. longifolia*. Australian Plants 10, 372 (1980).

Functions of the cotyledons in *Acacia*. Australian Plants 11, 65-66 (1981).

Acacia seeds as food. Australian Plants 13, 25-26 (1984).

New species - *Acacia armigera*

Acacia armigera is a recently named new species, currently known from only a single location near Mt Dimer, north of Southern Cross in Western Australia. It had previously been referred to as *Acacia* sp. Southern Cross. It is currently listed as Priority One under Conservation Codes for WA Flora (but it is likely that the species is at least slightly more widespread than is currently known).

***Acacia armigera* Shrub in habitat** **Photo Geoff Cockerton**

Acacia armigera **Photo Geoff Cockerton**

It is a dense, rounded shrub 0.8-1m high x 1-2m wide. It has rigid pentagonal phyllodes 13-34mm long, 1-1.2mm diameter, with apices pungent-pointed. Inflorescences are simple, globular, paired-axillary on slender peduncles 4.5-5mm long.

The specific epithet is from the Latin *armiger* (bearing thorns or armed), in reference to its spiny phyllodes. It has been given the common name Fierce Wattle.

In the last 50 years, more than 390 new Western Australian *Acacia* taxa have been described, and there remain around 75 informally named taxa that further require taxonomic research.

Reference:
Thiele, K.R., Davis, R.W. and Cockerton, G.T.B. (2023). *Acacia armigera* (Fabaceae), a new, geographically restricted wattle from the Coolgardie bioregion of Western Australia. *Nuytsia* 34: 95-98

Acacia armigera **Immature fruits** **Photo Geoff Cockerton**

An adventure in native foods

by Sharyn Meade, Owner/Manager of Red Rock Wattle

Currently, commercial plantations of edible wattle seeds are limited. To date, wild harvesting has been the norm. This method of collection and harvesting means that the full potential of wattleseed has yet to be explored in terms of sustainability of yield and supply to markets.

Red Rock Wattle developed from the purchase of 17 acres of existing farmland in Coragulac in 2019. Owners Peter Dalton and Sharyn Meade had intended to 'retire' to a small block of land and pursue their interest in native plants. Peter, in particular has long been interested in native plants and was associated with a native foods producer, including as chair of their foundation, supporting indigenous enterprises.

Understanding what to do with a small acreage, zoned for farming, lead to an introduction to Wattle Seeds Australia consultant, Peter Cunningham. Peter provided a site assessment and advice on planting, especially species types. Peter has also provided ongoing advice on implementing the enterprise including site preparation, silvicultural management, harvest and post-harvest handling and marketing.

No existing commercial wattle plantations of edible wattle species exist in this area as previous focus has been in semi-arid and higher rainfall areas. The land is undulating and this topography has caused some issues with the selected species. Soil testing confirmed good, high fertility for most parameters with a slightly acidic pH.

Our first planting in 2020 trialled 9 species:

- *Acacia saligna* (Golden Wreath Wattle)
- *Acacia longifolia*, *ssp longifolia* (Sallow Wattle)
- *Acacia retinodes* and *Acacia provincialis* (Swamp wattle)
- *Acacia baileyana* (Cootamundra Wattle)
- *Acacia pycnantha* (Golden Wattle)
- *Acacia microbotrya* (Manna Wattle), *Acacia daphnifolia* (Northen Manna Wattle)
- *Acacia victoriae* (Elegant Wattle)

Planting was undertaken in August 2020. The area to be planted was netted against rabbits (an ongoing problem) and the ground was prepared by ripping and spraying to reduce weed competition. No watering has been required, nor fertiliser. The trees progressed well but were significantly impacted by heavy frosts; in particular the *A. saligna*, *A. longifolia*, *A. pycnantha* and *A. victoriae*. Plus, heavy rainfall during winter affected even the Swamp Wattle in the lowest-lying area of the plantation.

Our first harvest was in January 2022, of the *A. baileyana*. The harvest was limited given the trees were not yet 24 months old. Some other species were also seeding but we were unable to harvest due to travel restrictions, and work commitments.

We had purchased the land with intent to build a home and manage the plantation. However, as our local council has denied our building application, we were forced to purchase an existing property in Colac and commute to our plantation.

In October 2022 we proceeded with planting another 1500 trees, concentrating on the species, *A. retinodes*, *A. provincialis* and *A. baileyana*. Given the challenges presented by wind and frosts, we had chosen to establish *A. saligna* windbreaks entirely around the perimeter of the area in 2021. We've noted now that this species is also impacted by frost and winds in this location, and have decided to use *A. retinodes* as windbreaks for our final planting.

The 2022 planting is progressing well but this time the trees were damaged by hares: notably not the *A. baileyana.* Most other growers also reported hare damage this year.

We are expecting an extensive harvest this year from our 2020 plantation from almost all the trial species. We have noticed that *A. longifolia*, while flowering profusely, has

suddenly aborted the flower buds and very limited seed is forming. This has happened to other growers with different species. No one has been able to articulate why this might happen.

Harvesting is undertaken by hand; imagine traditional olive harvesting! Seed pods are collected on sheets and then dried until the seed releases. Seed is aggregated with Wattle Seeds Australia at present for further treatment (roasting and grinding).

We have commenced preparing for our final stage of wattle trees. The *A. retinodes* windbreaks are in. This time we have used covers on every plant. We also have native plant windbreaks to protect the new plantation. Our final planting will commence in 2024 and is likely to be our three best performing species again: *A. baileyana*, *A. retinodes* and *A. provincialis*. The additional 1500 trees will make Red Rock Wattle one of the largest private producers of edible wattleseed in Victoria.

The future of integrating wattle seed into the Australian public consciousness and moving away from public perception of it as a 'niche' or 'exotic' product is highly dependant on harvesting development, research into cultivation and propagation, and raising awareness of the use of Australian native foods in Australian food culture.

There are specific health and environmental benefits from using food sources that are well-suited to our local climate and landscape, particularly those that are capable of adapting to changing climate. Red Rock Wattle is part of an Agrifutures project on accelerating wattleseed (and other native food) production.

To this end, growers are intent upon forming a co-operative and supporting further research into use and cultivation of edible wattle seed and marketing the product.

Footnote: Sharyn advises that if any Acacia Study Group members would like to visit Red Rock Wattle (in Coragulac, Vic) they would be most welcome. I can provide contact details if needed – email acaciastudygroup@gmail.com.

Acacia flagelliformis

Acacia flagelliformis is not a species that gets much mention in our newsletters. In March 2013, **Neil Marriott** commented on it as follows:

"I put in a drift of *Acacia flagelliformis* in the front garden last winter and despite a beautiful flowering this spring, they have ALL died despite being hand watered at least twice per week!! I have collected a bit of seed from them, but on the results so far I feel that it is NOT a species that will tolerate our dry summers!!"

It is an uncommon wetland/riparian plant found in the Bunbury/Busselton area in south west Western Australia.

In the book Collect and Grow That Seed (Barker, Campbell, Candy, McAllister and Schaumann), the authors describe it as:

"A small ornamental acacia with upright, open, grass-like stems, rarely growing above 1m tall and 1.5m wide in cultivation. Attractive plump brownish buds appear in the leaf axils before opening to bright yellow globular heads. Plants grow well in sun or part shade and should not be allowed to dry out."

Robyn Take recently sent me a photo of *A. flagelliformis* in her garden. She advises that she has three of them in her garden and all three of them flowered for ages this winter. She has sandy soil but has added further soil. She does keep her plants moist and well-watered – which seems to be important for this species.

***Acacia flagelliformis* showing off** **Photo Robyn Take**

The Woolly Wattles of Mandurang

By Eric Wilkinson

Mandurang is situated close to Bendigo in central Victoria.

From late April to July people driving along Diamond Hill Rd and Hollidays Rd at Mandurang will see small shrubby wattles with bright golden flowerheads lighting up the bush. They are Woolly Wattles, which have the scientific name of *Acacia lanigera* variety *whanii*. There are a few other small occurrences in Kangaroo Gully and at Spring Gully, but the best place to view this wattle is along Diamond Hill Rd, between its junction with Kangaroo Gully Rd and Hollidays Rd. There are places on the south side of the road where you can pull a car well off Diamond Hill Rd, and then walk and look at these wattles safely. They extend quite a way into the bush to the south.

They are small to medium sized shrubs, with fairly rigid upright branches fanning out to create a rounded

appearance. The local forms rarely exceed a metre in height, but it can apparently reach two metres elsewhere. The grey-green phyllodes are linear lanceolate, flat, slightly curved in outline, taper to a sharp point and are from 2.5 to 4 cm in length, and from 4 to 8 mm wide. They have up to six strong parallel veins, distinctly raised, which may have reticulation between them. In the typical variety of New South Wales the phyllodes are covered in hairs, especially when young, and are whitish in appearance. However, woolly is not an entirely appropriate adjective for the variety *whanii*, because magnification is needed to see the very fine hairs on the branchlets and phyllodes, although the seed pods (below) are more obviously slightly hairy.

***Acacia lanigera* var *whanii*, Diamond Hill Rd**

***Acacia lanigera* seed pods, Diamond Hill Rd**

The flowerheads are generally brilliant golden yellow, but paler lemon yellow flowered forms can be found amongst the golden ones. The flowerheads are of small to medium size, with about 25 flowers per flowerhead. The buds are ovoid, but the flowerheads are globular. They are borne singly, or in pairs, or in clusters of four in the axils, close to the branchlets, on short thickish peduncles (stalks). In the Bendigo area it used to be regarded as a winter flowering wattle. Flowers appeared in late May and continued into August, with peak flowering in June and July. In recent years it has been flowering about a month earlier, starting in late April and continuing to July, with peak flowering in late May and June. The pods which follow the flowers are much twisted in shape, and covered in woolly hairs in the type form. The pods are from 5 to 8 cm in length, and up to 6 to 8 mm wide, and only slightly constricted between the longitudinally elongated seeds.

There is an interesting taxonomic story behind the fact that the variety name *whanii* was introduced in 1914, but was largely ignored until 1995. Alan Cunningham described a new species of Acacia in 1825, based on a specimen from near Bathurst, New South Wales. He gave it the specific name of lanigera, which means 'woolly', based on the fact that the branchlets, phyllodes and seed pods were very hairy, especially the pods.

In 1864 Baron von Mueller described a new species of Acacia, based on a specimen collected at Linton, SW of Ballarat, by William Whan. It had similarities to *Acacia lanigera* but von Mueller thought it different enough to warrant its own species name. He gave it the specific name of *whanii*, in honour of the collector, Irish born William Whan, who was the minister at the Skipton Presbyterian Church from 1860 to 1884. He was an amateur botanist who collected material for von Mueller. In 1914 Edward Pescott placed *Acacia whanii* in synonymy with *Acacia lanigera*, but considered it to be sufficiently different to be treated as variety *whanii*, distinguished by being not nearly so obviously hairy as the typical species of New South Wales. In 1923 the Field Naturalists Club of Victoria published a first List of the Vascular Plants of Victoria in which they accepted Pescott's synonymy, and listed the Woolly Wattles of Victoria as *Acacia lanigera*. Mueller's name of *Acacia whanii* was placed in a section listing species erroneously recorded from Victoria. They did not adopt Pescott's variety name. As a result the Woolly Wattles of Victoria were recorded as *Acacia lanigera* by various authors until Richard Cowan and Bruce Maslin formally split *Acacia lanigera* into three varieties in 1995

They set up variety *lanigera* for the typical form of Central and Western New South Wales, re-established Pescott's trinomial of *Acacia lanigera* var *whanii* for the Woolly Wattles of Central and Eastern Victoria, and set up a new taxon of *Acacia lanigera* var *gracilipes* for a form from far eastern Victoria and southernmost New South Wales.

It is the variety *whanii* which grows at Mandurang. As noted above it is not as obviously hairy as the type variety *lanigera,* which occurs from Northeastern Victoria to northern New South Wales. Its distribution within Victoria is from the Ballarat area east to Licola in Gippsland. It occurs in the Castlemaine and Fryers Ranges areas to our south. Mandurang and Spring Gully are the northernmost occurrences of this variety in this area. Until a few years ago there was a small roadside occurrence at Sedgwick, on the road to Sutton Grange, but these shrubs were obliterated by road workers clearing vegetation. It is possible that there was seed which might germinate in the right conditions.

The Bendigo Field Naturalists Club's 1988 book Wildflowers of Bendigo did not include Woolly Wattle. The first edition of the Indigenous Plants of Bendigo of

2004 did, but used the name *Acacia lanigera*. In the second and third editions of 2007 and 2013 the name was updated to *Acacia lanigera* var *whanii*. It is an attractive small shrub to include in a garden. A drive out to Diamond Hill Rd in May and June will be rewarded by views of this small shrubby wattle in flower.

Acacia cognata 'Winter Flame'

by Bill Aitchison

This is one of the cultivars of *Acacia cognata*, and is described in nursery promotional material as follows:

A hardy dwarf native growing to approximately 80cm high and 1m wide, *Acacia* 'Winter Flame' features vibrant green fine foliage, and vibrant orange tips. When mature, Winter Flame creates a soft compact mound.

Its key features are stated as being a compact dwarf habit and vibrant green fine foliage.

I recently visited a garden where this plant was being grown near the front entrance to the house. It appears as if this particular plant had not read the label explaining how large it should grow (see photo). This plant had grown to the height of the house, far in excess of 80cm. The owner of the house explained that it had become a nice feature small tree, and it does respond well to pruning – in this situation pruning of the underside of the tree to allow access to the house entry.

Dance of the Plants is at Kulin Nation

Brendon Stahl (Elliminyt, Vic) has shared with us a posting by Dance of the Plants (danceoftheplants.org).

It's that time again so I thought I'd reshare. For those who don't know I know you're tempted, it's flowering everywhere right now… and looks so gorgeous. GARRON (Wattle) season is upon us. But if you believe in a little magic then you must listen to my Elders and my late Auntie Lennah, a senior Bunurong Elder. She told us that we were never to bring GARRON into the house. It was to be hung on the door, outside the house, where it would keep the bad spirits away. If you bought it inside then you would get bad luck. The GARRON is a very important plant to Bunurong people, not only for food and medicine but also for bush dye, wood and a thousand other things. I tell many stories of this tree but today I wanted to share this tiny part of its story.

For those that love the language. GARRON is a Kulin word and means Wattle in general. GARRONG is Black Wattle (*Acacia mearnsii*). In Bunurong – MURYAN is Silver Wattle (*Acacia dealbata*), WARRA WOORAP is Green Wattle (*Acacia decurrens*), BURNALOOK is Blackwood (*Acacia melanoxylon*),

Enjoy the sunshine it brings right now as GARRON tells us the season is turning, soon it will be PAREIP (Spring).

Golden Wattle Award 2023

Each year the National Wattle Day Association presents the Golden Wattle Award to a person(s) who has stood out in the Australian community, and either by actions or excellence, has brought honour and inspiration to their fellow Australians over the previous 12 months.

This year's winner was announced on 1 September, and is Vanessa Alexander, a scriptwriter from Newcastle, NSW. She received the award for her truly life changing advocacy and activism on behalf of refugees escaping from Taliban-run Afghanistan. Vanessa was responsible for saving scores of Afghan women and men, whose lives were at risk following the Taliban's takeover in August 2021.

Reference: wattleday.asn.au

A Beetle and a Caterpillar

by Bill Aitchison

Lyn Hovey (Riddells Creek, Vic) has a south facing hillside that runs down to a creek and had grown a forest of silver wattle (*Acacia dealbata*), some 10m tall down to small seedlings and lots of 2m – 4m trees. Over the last year most of their leaves have died. As it was a fire hazard Lyn cut many of them out but the big ones remaining still have green sappy stems. Not all of them have gone

brown, dotted over the hill are some that look perfectly healthy.

The cause of the problem is Fireblight beetles (*Peltoschema orphana*). These beetles have been mentioned regularly in our newsletters over the last few years. They are a native beetle that have been recorded as defoliating *Acacia mearnsii* and *A. dealbata*, particularly in areas north of Melbourne, including Riddells Creek.

***Acacia dealbata* showing defoliation** **Photo: Lyn Hovey**

Fireblight beetle **Photo Lyn Hovey**

Lyn comments that by identifying the problem with her silver wattles, she now has solved another query that she had – the stripey beetles that she takes out of her white bathtub every time she runs a bath are these Fireblight beetles.

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And a caterpillar

In early October, Sue and I noticed a caterpillar on an *Acacia wilhelmiana*, and for almost the next two weeks, we kept observing it. The Acacia was hanging over our driveway so we were very careful when we drove our car past the plant that we avoided brushing against the plant, for fear of knocking the caterpillar. And when we had visitors driving their large SUVs down the driveway, we made sure we held the branches of the plant safely away from the car. When it rained we also worried that the caterpillar might suffer from the drenching, but we shouldn't have been concerned. The caterpillar stayed with us for nearly 2 weeks, moving from one branch to another nearby branch, and apparently enjoying eating the foliage and spent flower heads. One morning, we went to check on it, but it was no longer there. It was a *Capusa cuculloides*. It is the White-winged Wedge-moth, a member of the Geometrid family of moths. The caterpillar is reported as feeding on the foliage of plants in various families including *Acacia pycnantha*, *Eucalyptus* species, *Boronia megastigma* and *Exocarpus cupressiformis*. It has been found in all states of Australia.

Capusa cuculloides **Photo Bill Aitchison**

Books

Field Guide to the Plants of Outback South Australia
By Frank Kutsche and Brendan Lay
Second edition updated by Tim Croft and Jurgen Kellermann
Published by Botanic Gardens and State Herbarium, SA 2023

The first edition of this book was published 20 years ago and was soon out of print. This new edition has been completely revised, plant names have been updated, many photos replaced and 10 species added. In total 356 of the most common outback plants are described (including 24 introduced weeds).

In recent times there have been very few books in print about plants of arid areas of Australia. Whilst this book

relates to outback areas of South Australia, it would also be useful for neighbouring areas of central Australia. Not surprisingly, a number of Acacia species are included in the book – *Acacia aneura* complex, *A. burkittii*, *A. calamifolia*, *A. cambagei*, *A. carneorum*, *A. continua*, *A. cyperophylla* var. *cyperophylla*, *A. estrophiolata*, *A. kempeana*, *A. ligulata*, *A. merrallii*, *A. notabilis*, *A. nyssophylla*, *A. oswaldii*, *A. papyrocarpa*, *A. ramulosa* var. *ramulosa*, *A. rivalis*, *A. salicina*, *A. sclerophylla* var. *sclerophylla*, *A. stenophylla*, *A. tarculensis*, *A. tetragonophylla*, *A. victoriae* ssp. *arida* and *A. victoriae* ssp. *victoriae*.

For each species, a description is provided and information included in relation to common names, aboriginal names, occurrence and also some interesting additional comments.

Acacias: The Genus Acacia (sensu lato)
By Ephraim Phillip Lansky, Helena Maaria Paavilainen and Shifra Lansky
Published by CRC PR INC April 2023
Hardcover 176 pages

This is not a book that I have sighted, and with a RRP of $315 it is probably targeted to a fairly specialist audience.

The publisher describes the book as follows:

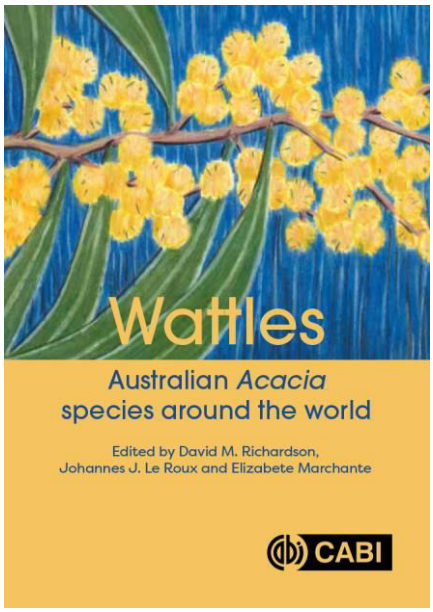
Acacias: The Genus *Acacia* (*sensu lato*) is an evidence-based treatment of this supergenus, through the eyes of a clinical pharmacognosist and integrative medicine specialist. The book begins with antiviral activity, revealing within the five genera of *Acacia s.l.*, pharmacological properties and pharmacologically active compounds. Profiles of prominent species within these genera, including photographs, accompany the narrative of current research and traditional usage into antibacterial, antifungal, anticancer, antidiabetic, metabolic syndrome ameliorative, and psychotherapeutic potential.

Wattles: Australian Acacia Species Around the World
By David M Richardson (Editor), Johannes Le Roux (Editor) and Elizabete Marchante (Editor)
Published by CAB Intl, November 2023
Hardcover, 584 pages

My thanks to **Suzette Searle** for providing some information regarding the book, in particular the following link to a quote promoting the book: https://lighthouse.mq.edu.au/article/august-2023/how-australian-wattlers-took-over-the-world-and-brough-their-fire-risk-with-them-new-book

"National Wattle Day on the first of September celebrates our national floral emblem but elsewhere in the world their prolific spread has sparked increased wildfire threats, according to authors of a new book.

The wattle is Australia's national flower, but our bright golden emblem has a dark side with scientists now concerned by growing fire risks posed by the global spread of the species formally known as Acacia.



A new book co-edited by Macquarie University botanist Associate Professor Jaco Le Roux - Wattles: Australian Acacia Species Around the World - explores the biology, ecology and evolution of the remarkable Australian native plants.

"There has been an enormous amount of research into these plants, and our book is the most comprehensive collection of information about wattles you will find anywhere, " says Associate Professor Le Roux.

Since colonisation, at least 417 wattle species have been introduced to areas outside Australia, establishing themselves as non-native species in an estimated 172 countries. Wattles are used globally in forestry and farming, for fuel, in building materials, for human food in the form of edible wattle seeds and for revegetation and sand stabilisation.

However, some Acacia species can alter soil chemistry, reduce biodiversity, and disrupt nutrient cycles. They can pose a more sinister danger in a warming world – that of heightened fire risks.

"These plants are amazing. But they're also very detrimental invasive species in many countries around the world."

Flame trees

Associate Professor Le Roux says outside their natural habitat, many highly flammable and fire-adapted wattle species have become invasive weeds.

"*Acacia cyclops* – a highly flammable species that produces a lot of fuel for fires – has been shown to increase both the frequency and intensity of wildfires in

areas it invades, with devastating consequences for ecosystems and human settlements," says Associate Professor Le Roux.

“In the Mediterranean-style ecosystems where many wattles are now invasive, trees were historically absent, and so these wattles are taking over a new structural role as they transform the landscapes with high density tree cover,” he says.

Mediterranean shrublands, such as South Africa’s fynbos biome, are fire-dependant ecosystems that need to naturally burn at least once every fifteen years because many species reproduce based on fire intervals, he says – but wattles bring a massive increase in fuel load.

“This leads to more severe and frequent fires with very serious implications for both the ecology of native species, and for human settlements.”

How wattles travelled

There are more species of wattle identified than any other Australian plant group – 1082 species to be exact, and only 17 are not native to Australia.

One wattle species is native to the Hawaiian Islands, one to Madagascar and one to Reunion Island in the Indian Ocean for example.

“Our earlier research used some very sophisticated genomic analyses to show that the ancestor of the Acacia population in Hawaii dispersed naturally from Australia to the Hawaiian Islands, and then onwards to Reunion Island,” says Associate Professor Le Roux.

“This was the single longest dispersal event ever recorded in history for a plant,” he says, explaining the seeds were probably spread by birds."

While invasive, fire-prone wattle species cause damage, other wattle species are prized for their economic value, and for being cheap and easy to grow.

"*Acacia mangium* is an important cash crop that provides income and livelihood security to many households in south east Asia," says Associate Professor Le Roux.

"While wattle species such as *Acacia cyclops* pose a significant fire risk in South Africa, many rural people in that country use the species as their primary source of fuel for cooking and heating.”

They are used for purposes as diverse as timber production in South Africa, to make glue in Ethiopia and to produce wood for the pulp and paper industry in Vietnam.

"Wattles show how important it is to take care when introducing species to new environments, to consider both the positive and the potentially negative consequences,” says Associate Professor Le Roux.

More Books

Some long time members of APS Victoria are looking to downsize their substantial library of native plant books that they have built up over many years. APS Victoria is offering the books for sale on their behalf.

There are about 300 books in the collection offered for sale, including the following books on Acacias:

Acacias of Australia Volumes 1 and 2 (Marion Simmons)
Flora of Australia Volume 11A Mimosaceae Part 1
Flora of Australia Volume 11B Mimosaceae Part 2

The listing of books can be accessed on the APS Victoria website (https://apsvic.org.au/book-sales/) – click on the link to “Books held off-site”. Enquiries about any of the books listed can be made by email to books@apsvic.org.au.

Some Acacia Research

Acacia* sect *Lycopodifoliae

Acacia sect *Lycopodifoliae* comprises about 24 species that have whorled phyllodes, globular flower heads and are predominantly in WA through the NT and to Queensland.

This section has been the subject of a recent thesis by Nancy Conejo from San Francisco State University, California as part of a Master of Science degree. She suggests that the boundaries among the species in this section have traditionally been difficult to determine, but that it appears that a combination of minute characteristics and geography is the key to understanding differences between various taxon. Important characteristics that can be used to differentiate species include phyllodes per whorl, flowers per head, corolla striation, calyx, and seed arrangement.

Reference:
Conejo, N., Biogeography of the whorled wattles (*Acacia* section *Lycopodiifoliae*) in the Australian Monsoon Tropics (May 2023) San Francisco State University (downloadable at https://scholarworks.calstate.edu/downloads/ws859p48v)

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Acacia pendula

In our Study Group Newsletter No. 128 (March 2015), reference was made to a 2014 paper by Bell and Driscoll relating to doubts as to the status of *Acacia pendula* in the Hunter Valley – the question being whether it is a rare species of high conservation status, or an introduced woody weed in that region.

Bell and Driscoll have now published a further paper on this subject. However, in this paper they conclude that previous debate on the status of *Acacia pendula* in the natural flora of the Hunter region of NSW remains

unresolved. They refer to the discovery of a journal entry and a specimen of *Acacia pendula* collected from "Hunter's River" by Allan Cunningham in April 1825, but conclude that this discovery provides no confirmation that the species naturally occurred extensively in the region.

Reference:

Bell SAJ, Driscoll C (2023) *Acacia pendula* (Fabaceae: Mimosoideae)) in the Hunter Valley of New South Wales: Cunningham's collections from April 1825 and its implications. *Telopea* 26: 37-47.

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.

The most recent seed list that was published in the newsletter was in Newsletter No. 147 (https://anpsa.org.au/wp-content/uploads/acacia147.pdf).

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. 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.

Study Group Membership

Acacia Study Group membership for 2023/24 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 2022-2023			
INCOME	**Balance at 1.7.22**		$1124.54
	Members' subs	$541.00	
	Seed bank purchases	$20.00	
	Total Income	$561.00	$561.00
EXPENSES	Stationery	$3.20	
	Printing	$396.00	
	Postage	$90.20	
	Total Expenses	$489.40	-$489.40
BALANCE	**Balance at 30.6.23**		$1196.14