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Submit articles to the Editor Lachlan Garland newsletter@apsvic.org.au

On the cover

Grevillea preissii ssp. glabrilimba Photo: Bruce Schroder

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THE SOCIETY

The purposes of the Society are:

I. to promote and maintain interest in growing and propagating Australian plants in home gardens and public places

2. to encourage the recognition and development of distinctive landscape styles and forms using Australian plants

3. to improve Australian plants as garden subjects

4. to monitor and encourage the strengthening of the laws for preservation of flora

5. to encourage the nursery industry to propagate and supply Australian plants to the general public

6. to support all information received by the Society on methods of propagation and of the sources of supply of plants and seeds available for distribution and to publish such information from time to time

7. to establish and encourage district groups

8. to encourage and facilitate the conservation and study of Australian plants in the natural environment

9. to establish and maintain a public fund to be called the APS VIC PUBLIC FUND for the specific purpose of supporting the environmental objects/purposes of the Society

9.1 the Fund is established to receive all gifts of money or property for this purpose and any money received because of such gifts must be credited to its bank account

9.2 the Fund must not receive any other money or property into its account and it must comply with subdivision 30-E of the Income Tax Assessment Act 1997

10. to further the dissemination of knowledge and to act as a source of informed opinion on relevant issues

Our purposes aim at ensuring the continued survival of all Australian native flora. The Society recognises the close relationship Australian native flora has with the native fauna in providing habitat, food, protection and a myriad of other benefits. The survival of one assists in the survival of the other.

District Groups operate across Victoria and the metropolitan area. The President, Secretary, and meeting times and places are listed on page 50. Please contact the relevant person if you wish to join in with the meetings and activities of a District Group.

Study Groups exist for many of the more popular groups of Australian plants. As a member of the Society, you can join one or more of these. Contact details can be found on our website.

Editorial

Lachlan Garland

Save Our Flora is an independent national project founded by Maria Hitchcock as an informal sharing group with the aim of saving our flora by conservation via cultivation. Many of you may be members. If not, I urge you to join up by emailing saveourflora@gmail.com. Membership is free.

Save our flora is also a catch cry all too often being uttered by Australian plant enthusiasts.

The 3rd edition of *Flora of Melbourne* (2001) mentions that the Slender Velvet-bush (*Lasiopetalum bauera*) '... is now locally very rare. One plant remains in the Sandringham area.' Since the publication of this book things have changed for this plant in Bayside Melbourne. Due to propagation by the local community nursery and planting back into bush areas, council managed gardens and also sales to gardeners, the plant is a common sight.

As a garden plant it is a beauty – drought tolerant, grows to about I-I.5 m, thick

vegetation and hardly needs pruning, although I've noticed that it has potential as a hedging plant.

The 'saving' of this plant got me thinking. While we read about the successes by government agencies in saving endangered plants, shouldn't we be doing more ourselves? Are district groups actively involved in the propagation of rarer plants? With the growing number of threatened species, it is impossible for a community group to save them all unfortunately, and the rarer plants need more expertise in sourcing and cultivation. But could what was achieved with the SlenderVelvet-bush be replicated for plants in your local area?

If you're reading this and thinking 'we are doing that' then let me know. Your achievements should be recognised and promoted. If your district group is not saving at least one plant, I challenge you to take this up as a project and contribute to saving our flora.

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From the President

Chris Long

hope your gardens have recovered from the summer heat and are well on the way to good health, even though we are well down on rainfall. I hope you have enough moisture to safely plant your new plants purchased at the autumn plant sales.

We bought a few new plants to fill in gaps where plants had died or had been removed but we are running out of space. Most of the new plants from the past two years are establishing well. We may have been a little enthusiastic in the closeness of plantings but there is always the option of pruning to a smaller size. Our eremophilas continue to perform well and are a great source of pleasure to us – especially *Eremophila christopheri*, for which I have a particular affinity, for obvious reasons.

I have enjoyed my visits to the plant sales. It is encouraging to see how much work our members contribute to activities promoting the growing of Australian plants.



Eremophila christopheri flowers

same as last year. They are shown on the renewal notice in this issue of *Growing Australian*.

Awards

I am pleased that we have received several award nominations this year. They have been considered by the Awards Sub-committee. The recommendations will be presented to the June COMM for approval.

AGM

Our AGM will be held at Royal Botanic Gardens, Cranbourne on September 14th 2019 at 2 pm following the morning COM meeting. I urge you to attend and show your support for the volunteers who take on committee positions and ensure the on-going management of our Society.

Vacant Secretary position

There was no nomination for Secretary at the last AGM. I have been acting secretary since then and am happy to continue until the next AGM but it is to the benefit of APS Vic to have all committee positions filled. If you are interested in taking on the role please talk to me.

Growth and Development Sub-committee

We are still looking for new people to join the Sub-committee. Please consider who you think would be good for APS Vic and put their name forward or, of course, volunteer yourself.

The committee meets about every six weeks on a Saturday afternoon at various locations around Melbourne. We look at forward planning, ideas for growth and development, act as a 'think tank' for the Society and are dedicated to work for the benefit of the Society at all levels from individuals to the federal (ANPSA).

Melbourne International Flower and Garden Show (MIFGS)

We had many visitors stop and talk to us at our stand which was in a high traffic area on the ground floor. We certainly promoted Australian plants to lots of people.

Bernard and Dallas Boulton did a magnificent job in designing, then installing our display and attending the display each day of the show – a huge commitment from them for which we are especially grateful.

Many thanks to those who spent some hours on the stand, giving Bernard and Dallas much needed breaks – Bill Aitchison and Sue Guymer, Chris and Glenys Long, Miriam Ford, Neil Macumber, David Redfern and Linda (from Friends of Melton Botanic Gardens). As well as our display we had, for the first time, two one-hour speaking spots on the main stage. These were arranged by Dallas and gave a further opportunity to spread the word on Australian plants.

On Thursday afternoon Glen Yearsley from Austplant Nursery at Arthurs Seat entertained and informed a large crowd. The questions afterwards, including those on the side after the allotted time was up, showed the high level of interest generated. A similar result came from the Saturday afternoon presentation by A.B. Bishop, Chloe Foster and Angus Stewart.

I want to record a special thank you to all our presenters who did such a wonderful job. In addition they very generously did not charge for their services.

The event managers were impressed with our speakers and we are likely to have the opportunity to fill several slots at next year's show.

MIFGS is a great opportunity for us to promote Australian plants to many thousands of people with an interest in gardening who attend over the five days. I think it is our best chance to promote Australian plants to the wider gardening public and we must be there.

Neutrog

I have signed the formal Bush Tucker endorsement agreement with Neutrog. We are busy putting in place the various actions needed under the agreement. There is a link on the APS Vic website's home page to Neutrog and our endorsement roundel is on the Bush Tucker information sheet at www.neutrog.com.au/ product_range/bush-tucker/.

Neutrog is working on several promotion items including a banner for use at plant sales and flower shows offering a free pack of Bush Tucker to anyone joining APS Vic on the day.

The standard process for the special product offers is that a Neutrog representative addresses the District group meeting before the order sheets are provided to that group. This will take time to implement and we may need to make interim alternative arrangements for some groups.

I look forward to both APS Vic and Neutrog gaining the full potential of this endorsement over the coming months.

FJC Rogers Seminar 2020 - Lamiaceae

APSYarra Yarra is progressing with preparations for this event and early indications are that it will be a wonderful weekend (24 & 25 October 2020) in keeping with the proud tradition of previous seminars. I encourage you to now make a mental commitment to attend (it is too early to book yet) and join with fellow Australian plants enthusiasts to learn more about this interesting group of plants.

Banks Solander 250th anniversary commemoration

2020 is the 250th anniversary of the arrival of Banks and Solander with Captain Cook on the *Endeavour*. They created a major European collection of our Australian flora.

We plan to hold a commemoration event during the week of MIFGS, on Saturday 28 March 2020. Please reserve this date.

We will have a display for seven weeks in the gallery at Federation Estate, Ringwood, on all things banksia including original herbarium sheets from 1770. Planning is well underway but further ideas and suggestions are most welcome – send to Dallas Boulton, Alex Smart or to me.

Website

We continue to make improvements to our website. John King does an excellent job and responds quickly to any questions. If you have suggestions for improvement please email them to our web administrator at webadmin@apsvic.org.au.

I encourage all district groups to make sure that their information on the website is up to date.

Committee of Management Meetings (COMM)

In the absence of a district group host, the spring meeting, including the AGM, will be hosted by APS Vic and held at Royal Botanic Gardens, Cranbourne.

Thank you to host volunteers: APS Bendigo in November 2019 and APS Warmambool in spring 2020. We are still looking for volunteers for June 2020 and November 2020. I encourage district groups to consider hosting a COMM. It can be as simple as hosting the COMM only, up to a full quarterly weekend.

May you find continued pleasure and relaxation in your gardens and the natural environment. $(\ensuremath{\mathbb{QA}})$

Wildflowers of the Victorian Alpine Areas



by John Murphy Photos by Clare Murphy

View from The Horn, Mt Buffalo

uring the first week of December 2018, Bill Dowling and I took our wives and a group of friends on a botanical tour of the areas around Mt Buffalo, Falls Creek, Anglers Rest and Mt Hotham in north-eastern Victoria. This trip was to celebrate the release of the second edition of our book, *Plants of the Victorian High Country*. On our first evening, the 12 of us gathered in the community hall in Harrietville, a small town at the foot of Mt Hotham and Mt Feathertop. Here, Bill gave a PowerPoint presentation to us and interested members of the local community, based on the photos of local plants that he had taken over the last 10 years while we were researching material for our book.

The following day we travelled in convoy to Mt Buffalo. Each vehicle had a CB radio which was invaluable as it is often difficult to stop and pull over on the narrow, winding mountain roads. Our plant-hunting centred around Lake Catani just beyond the heritage-listed Mount Buffalo Chalet.

A local guide, Clyde O'Donnell, helped us with identifying plants, as well as providing historical information about the Aboriginal and European connections with Mt Buffalo.

The margin of the lake is a boggy, alpine herbfield while the surrounding higher ground consists of a heathy, sub-alpine community beneath open snow gum woodland. We were hoping to see Fairies' Aprons (*Utricularia dichotoma*) close to the lake shore but unfortunately they were one or two months away from flowering. Two species of mint-bush – Round-leaf Mint-bush (*Prostanthera rotundifolia*) and Alpine Mint-bush (*P. cuneata*) – were flowering profusely on the more exposed, rocky sites.

Close to the walking track and the access road we saw a wide variety of plants in flower, including: Mountain Baeckea (*Baeckea utilis*) cascading down rocks, two species of everlasting daisies (*Coronidium scorpioides* and Clustered Everlasting (*Chrysocephalum semipapposum*)), two orchid species (Mountain Caladenia (*Caladenia alpine*) and Common Bird-orchid (*Chiloglottis valida*)) in the damper areas, two grevilleas (Royal Grevillea (*Grevillea victoriae*) and Alpine Grevillea (*G. australis*)), Mountain Needlewood (*Hakea lissosperma*), Alpine Boronia (*Boronia algida*), Mountain Pepper (*Tasmannia xerophila*), Tall Riceflower (*Pimelea ligustrina*), Ivy Goodenia →



Swamp Heath (Epacris paludosa)

Growing Australian June 2019



Round-leaf Mint-bush (Prostanthera rotundifolia)

(Goodenia hederacea), Bossiaea distichoclada, pink-bells (Tetratheca spp.), Forest Phebalium (Phebalium squamulosum), and two beautiful white-flowering heaths (Swamp Heath (Epacris paludosa) and E. gunnii).

Next morning we followed Dungey Track from near Freeburgh, travelling beside Snowy Creek, then up over Simmonds Gap and down to Mount Beauty in the Kiewa Valley. Dungey Track is an old logging track once used to transport Alpine Ash (*Eucalyptus delegatensis*) from the Kiewa Valley to sawmills in north-eastern Victoria. There are two or three creek crossings along this track, so a 4WD vehicle is recommended.

As we drove alongside the creek we saw medium-sized trees of Victorian Christmas Bush (*Prostanthera lasianthos*) covered in masses of white flowers, as well as many ground-covering specimens of white and yellow buttercups (*Ranunculus* spp.), and occasional specimens of Native Storksbill (*Pelargonium australe*) and Prickly Starwort (*Stellaria pungens*). In the drier areas on the upper side of the road in the creek valley we identified trigger plant (*Stylidium armeria*), Spiny-headed Mat-rush (*Lomandra longifolia*), and we saw one specimen of Slender Stackhousia



Victorian Christmas Bush (Prostanthera lasianthos)

(Stackhousia viminea) and several fringe lilies (Thysanotus spp.).

As we headed up over Simmonds Gap we stopped a couple of times on wider sections of the road to look at the wildflowers around us. We saw isolated patches of the beautiful blueflowering Native Flax (*Linum marginale*), as well as pink-bells (*Tetratheca* spp.), Common Rice-flower (*Pimelea humilis*), Grey Guinea-flower (*Hibbertia* obtusifolia), Handsome Flat-pea (*Platylobium*)



Slender Stackhousia (Stackhousia viminea)



Native Flax (Linum marginale)

montanum), Derwent Speedwell (Veronica derwentiana), a donkey orchid (Diuris spp.) and three species of daisy bushes – Shiny Cassinia, Common Cassinia and Musk Daisy-bush (Cassinia longifolia, C. aculeata and Olearia argophylla).

After lunch at Mount Beauty, we travelled up to Falls Creek and on towards Pretty Valley Reservoir on the Bogong High Plains. Just before the reservoir there is a wildflower 'hot spot' close to Ruined Castle, which is an outcrop of hexagonal columns of basalt. The Bogong High Plains themselves consist of a series of low hills capped with basalt overlying high-grade metamorphic rocks such as gneisses and schists.



Derwent Speedwell (Veronica derwentiana)

At Ruined Castle the group divided into pairs and used our book to identify as many plants as possible within an hour Amongst the carpet of brilliant purple-flowering Mountain Hovea (Hovea montana), we saw flowers of Alpine Riceflower (Pimelea alpina), Alpine Grevillea (Grevillea australis), Victorian Buttercup (Ranunculus victoriensis). Forest Phebalium (Phebalium squamulosum), Twin-flower Knawel (Scleranthus biflorus), brachyscome daisies (Brachyscome spp.), Swamp Heath (Epacris paludosa), Prickly Starwort (Stellaria pungens) and Silver Ewartia (Ewartia nubigena).

That evening we travelled across the Bogong High Plains and down into the Mitta Mitta Valley where we stayed at Paynes Hut, which provides five-star accommodation in an isolated area near Anglers Rest. Omeo and Albury are both about two hours away in opposite directions. Paynes Hut was built by the owners Graham and Tess Payne who were formerly builders and chefs in Melbourne; it is surrounded by a beautiful garden landscaped, planted and maintained by Tess.

Next morning we were fortunate to have a conducted tour of nearby Mittagundi Outdoor Education School, which was established 30 years ago by lan Stapleton, a former \rightarrow



Small-fruited Hakea (Hakea microcarpa)

teacher at Timbertop, the outdoor campus of Geelong Grammar. The school is owned by a Trust and offers 10-day courses to students from throughout Australia. After a leisurely lunch back at Paynes Hut, we travelled about 20 km to stay overnight at a farm called The Willows in the Bundarra Valley near Anglers Rest.

Flowers seen in the Mitta Mitta Valley area included specimens of the yellow bulbine lily (Bulbine bulbosa), mauve Twining Glycine (Glycine



Violet Kunzea (Kunzea parvifolia)

clandestina), common woodruff (Asperula conferta), Bidgee-widgee (Acaena novae-zelandiae) and Handsome Flat-pea (Platylobium montanum). Gorse Bitter-pea (Daviesia ulicifolia) was common, as was the Small-fruited Hakea (Hakea microcarpa) with its distinctively shaped fruits, Grey Guineaflower (Hibbertia obtusifolia) with its bright yellow flowers, Violet Kunzea (Kunzea parvifolia) and the Blue Flax Lily (Dianella tasmanica). We also saw several daisy species, ranging from herbs such as billy-buttons (Craspedia spp.) to low woody shrubs of Common Cassinia (Cassinia aculeata) and trees of Blanket Leaf (Bedfordia arborescens).

On our final day, before returning to Harrietville, we travelled via Omeo to Mt Hotham. Here we fanned out over the wind-swept slopes of the summit hoping to find Mountain Celery (*Aciphylla glacialis*) in flower, but we were too late – it had already flowered. The same applied to Alpine Orites (*Orites lancifolius*), a member of the Proteaceae family. All we could see on these



Gorse Bitter-pea (Daviesia ulicifolia)

spreading, low-growing plants were boat-shaped, leathery fruits interspersed among the thick leathery leaves.

On the other hand, we were too early to see the flowers of Yellow Kunzea (*Kunzea muelleri*), though the buds on the plants were close to bursting. However we did see masses of the white-pink flowers of Thick Eyebright (*Euphrasia crassiuscula*) as well as purple-flowering Mountain Hovea (*Hovea montana*), the distinctive yellow star-like flowers of Alpine Starbush (Asterolasia



Ladybirds in the seed follicles of Alpine Orites (Orites lancifolius).



Alpine Boronia (Boronia algida)

trymalioides), two species of Pimelea (Pimelea axiflora and Alpine Rice-flower (P. alpina)), pale pink Alpine Caladenia orchids (Caladenia alpinaa), silver snow-daisies (Celmisia spp.), Snow Beardheath (Acrothamnus montanus) with its distinctive white-and-green-striped leaves, the yellow-flowering Ivy Goodenia (Goodenia hederacea), and Alpine Grevillea (Grevillea australis) with its small creamy-white, heavily perfumed flowers.

A few kilometres further down the Mt Hotham–Harrietville road we stopped for lunch at Baldy Hollow Lookout. Here we saw a spectacular mixed display of low-growing Alpine Westringia (Westringia senifolia), pink Alpine Boronia (Boronia algida) and Alpine Rice-flower (Pimelea alpina). Also present were Mountain Pepper (Tasmannia xerophila), Gorse Bitterpea (Daviesia ulicifolia), Ivy Goodenia (Goodenia hederacea), brachyscome daisies (Brachyscome spp.), Soft Crane's-bill (Geranium potentilloides) and Mountain Violet (Viola betonicifolia). We think we saw a specimen of Bogong Daisy-bush



Alpine Westringia (Westringia senifolia)

Growing Australian June 2019



Alpine Starbush (Asterolasia trymalioides)

(Olearia frostii) too, but it had finished flowering, making accurate identification difficult.

References:

Plants of the Victorian High Country by John Murphy and Bill Dowling (2nd edition, CSIRO Publishing) provides descriptions of most plants. High Country Victoria (Hema Map) shows the roads and tracks travelled.



Alpine Rice-flower (Pimelea alpina)

Neutrog is pleased to announce an endorsement from the Australian Plants Society of Victoria for its native plant fertiliser...

RTISH

"Native plants are great survivors in the garden but to get them to thrive and reach their full potential they really need regular fertilising".

Angus Stewart, native plant expert and breeder, author and former host of ABC TV's Gardening Australia.

Developed to meet the needs of all Australian native plants, Bush Tucker was developed by Neutrog in consultation with native plant expert Angus Stewart and soil scientist, Simon Leake. As with all Neutrog products the Bush Tucker formula was developed over a number of years and was widely trialled by numerous expert native plant growers prior to release. Bush Tucker is a complete, organic-based boosted fertiliser, specifically developed to meet the specialised needs of all Australian native plants.

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Book Talk

Bill & Sue

am writing this in mid-April. Yesterday was 30°C in Melbourne – might almost suggest that our climate is warming! I was very excited at the end of March as we had about 50 mm of rain over the last week. However, there has been little since, and we have only had about 100 mm for the year so far. I am sure that there will be many of you who have had even less. We can only hope that we will get an autumn break. That said, it hasn't stopped us buying plants at autumn plant sales (as well as a couple of our local indigenous nurseries). Hope springs eternal ...

Our book review this guarter is Flora of the Hunter Region: Endemic Trees and Larger Shrubs by Stephen Bell, Christine Rockley and Anne Llewellyn,

Grasses of South Australia: An Illustrated Guide to the Native and Naturalised Species is a paperback edition of the popular book by John Jessop, Gilbert R.M. Dashorst and Fiona M. James. There is no equivalent book covering



INTERNET: www.apsvic.org.au EMAIL: aps_ballarat@yahoo.com.au CONTACT: P: 5345 2514 M: 0418 303 405

Victoria's grasses, but we have been advised that this book, and Grasses of NSW, are the best books available for Victorian grasses.

There is a new, 5th edition of A Guide to Flowers & Plants of Tasmania. This guide comes to us from Launceston Field Naturalists Club. and has been in print since it was first published in 1981. The 5th edition has been extensively revised with 30 additional species, updated text and many new pictures.

Reptiles of Victoria: A Guide to Identification and Ecology by Peter Robertson and A. John Coventry comes to us from CSIRO. We are often aware of the reptiles in our garden perhaps small skinks, bluetongues and even the odd snake, but there are many species which we would not know so well. This illustrated guide describes the 123 native, introduced and vagrant reptile species in Victoria.

The latest bird book is Field Guide to Birds of North Queensland by Phil Gregory and Jun Matsui. It is a field guide which is copiously illustrated by photographs of birds of the many diverse environments of North Oueensland. More than 420 bird species are covered.

It is never possible to put all our titles on the booklist as that would take many pages. In particular, we currently have a large number of second-hand books. Some of these are very sought-after books which have been donated by our generous members. A separate list of our second-hand titles can now be found at apsvic. org.au/book-sales/. Some eagle-eyed members have already found their heart's desires there! We will update the list from time to time, but be aware that they can disappear guickly. Some of the second-hand books available are featured on the next page.

We have more titles than fit on the booklist. Contact us on books@apsvic.org.au or phone (03) 9872 3583 for a book not on the list – so long as it relates to Australian plants or related areas such as native fauna or weeds, If you want to pay by PayPal, please email and we will provide instructions.

Some Second-hand Treasures

e currently have a significant number of second-hand books for sale. A listing of these can be found at apsvic.org.au/ book-sales/. A few of the gems are referred to below. If you are interested in a particular book, please check first that it is still available.

Australia: 300 Years of Botanical Illustration by Helen Hewson. Collector's Edition, CSIRO Publishing, 1999.

This beautifully presented book provides an overview of the way in which Australian plants were depicted in art over the 18th, 19th and 20th centuries. It is illustrated with 160 colour illustrations drawn from major herbaria in both Europe and Australia.

The original 1999 edition was issued as a Collector's Edition, individually numbered (with 375 copies) and with a slip case. The copy that we have is copy no.23.

A Field Guide to Native Peaflowers of Victoria and Southeastern Australia by Dorothy Woolcock. Kangaroo Press in association with SGAP NSW, 1989.

Unlike some sections of the Australian flora, the pea family is one for which very few books have been produced. This field guide, which is not commonly available, includes descriptions and illustrations of 152 species of pea found in south-eastern Australia.

Flora of the Kimberley Region by J. R. Wheeler (Ed). WA Herbarium, 1992.

The Kimberley region of Western Australia is currently a popular destination for APS members, although this is probably not a book that you would want to carry with you on your travels – it has 1,350 pages and weighs nearly 3 kg. But for those with a serious interest in the flora of this area, it includes descriptions of 2,085 native and introduced plant species, with notes on habitat, distribution and flowering seasons, with 356 line drawings to aid identification.

Germination of Australian Native Plant Seed by Peter J. Langkamp (Ed.). Inkata Press 1987.

Various aspects of germination are described in this book, including seed dormancy; ecological aspects of seed germination; collection, handling and storage of seed; seed testing procedures; seed development and germination in various plant families; and the identification of seedlings of native plants.

Wildflowers of South-eastern Australia, paintings by Betty Conabere and text by J. Ros Garnett. Nelson, 1974.

This two-volume set comes in a slip case, and is one of a limited edition of 775 copies. The copy that we have is signed by both Betty Conabere and J. Ros Garnett. Includes 80 full page colour plates.

Around Mount Isa: A Guide to the Flora and Fauna by Helen Horton. University of Queensland Press, 1976

For anyone visiting Mt Isa, I think this would be a handy small guide to the flora and fauna of the region, even though it was published more than 40 years ago. In relation to the flora, plant descriptions are separated into sections covering trees, shrubs, creepers and low-growing herbs and mistletoes.

- Bill Aitchison



Book Review

Flora of the Hunter Region: Endemic Trees and Larger Shrubs By Stephen Bell, Christine Rockley and **Anne Llewellyn**

Published by CSIRO Publishing March 2019 136 pages, Hardback Members' price \$60 plus postage

hat a delight to pick up a book with outstanding botanical paintings on 54 of the endemic trees and shrubs of the Hunter Region. This is an area inland from Newcastle and as far west as Dubbo, It has an extensive range of native vegetation and harbours over 100 endemic species, half of which are included in this book. They are beautifully painted and scientifically accurate. The detail of their endemism is clearly illustrated with each full-page plate.

This is a work of 13 botanical artists and as Steven Hopper states in his introduction, he





is 'convinced that illustration has a continuing contribution to make in the documenting and celebrating natural history'. The ability to illustrate the specific detail of a species is generally beyond the capabilities of a photograph and so the value of the artwork stands alone – think for a moment of the Banksia work by Celia Rosser.

The introductory chapter discusses the richness of the flora of this region which is mainly found on the sandstone uplands; talks of endemic criteria, plant descriptions and what constitutes a Type Specimen as well as the conservation status which concerns so many of these endemics.

Each species has the opposing page with detailed information and a map showing the general area of distribution and its conservation status. Detailed taxonomic descriptions allow accurate identification of each of this endemic group of generally poorly known flora. The habitat is described with the associated flora. listed. It is good to see the diagnostic features of each species given attention as so many floras omit this aspect. There are generally other species with close affinity to these endemic species and they are referred to and discussed thoroughly.

The presentation of this book is quite stunning with the full plate-sized colour illustration of the endemic Angophora inopina on the cover. For anyone interested in the flora of this region this work of art cannot be surpassed. A second volume of another 50-odd species currently is in production and will complete the endemic flora of the region with its coverage of small shrubs, cycads, orchids and forbs.

-Trevor Blake

Growing at Wartook Gardens

words and photos by Royce and Jeanne Raleigh

We have both large dams dry and are using a lot of piped water to try and keep everything growing. We are putting extra logs around garden beds and preparing some beds for a total regeneration. This has to be done as many plants are now quite old and it is only when you look back at old photos that you realise how much better they flowered when in their prime. Jeanne has planted a great deal of seed in recent weeks and we look forward to some new plants.

Grevillea aspera

A small shrub, often suckering, which grows naturally from the northern Flinders Rangers through the Gawler Range to the Port Lincoln, SA. Although not popular in cultivation, the Gawler Range form is exceptional in flower and eagerly sought by enthusiasts. Prefers a sunny position and is drought and frost tolerant. Does well in a container. We have it growing in a welldrained bed on the side of a drain which gets the hot afternoon sun, and with lightly suckering it is about 600 mm high and about 3 m across.

Anigozanthos rufus

(Red Kangaroo Paw)

A clump-forming perennial herb from southwest WA with flowerheads to 1–1.5 m tall. Need well-drained soils and a sunny situation. Plants can be subject to ink disease, so more suitable to areas with lower humidity, and they are commonly attacked by slugs and snails. This should not deter gardeners as they are a most attractive plant.

Jacksonia scoparia

(Dogwood)

A medium to tall shrub with silky greyish foliage that is most attractive when in flower. The profuse flowers are sweetly fragrant and attract butterflies. The plant grows naturally in a variety of habitats and although has been cultivated for a very long time, it has never proved really popular but deserves to be much more popular. Hardy to frost and will tolerate a wide variety of garden situations. Responds well to light pruning. Makes a wonderful display when in full bloom.



Growing Australian June 2019

Hakea conchifolia

(Shell-leaved Hakea)

A dwarf to small shrub with young growth covered in rusty hairs. Flowers can be white to pink and most interesting shell-like leaves. It is a plant worthy of cultivation just for the leaves and the new growth. It usually growths in sandy heath situations in sandy, gravelly or stony soils. In our situation it needs a well-drained sunny situation. It has proved hardy to most frosts but plants have succumbed in extended dry spells. Lack of availability has prevented this very attractive plant from being much more widely grown.



Lambertia inermis

(Chittick)

A medium to tall spreading or erect shrub. Our plant is growing in a semi-shade situation and is quite an erect plant of 3–4 m. Flower colour can vary, with the yellow form more common on sandy soils while those with orangered flowers are on the more gravelly soils. They make excellent screening and hedging plants and will do well in coastal situations. Flowers are never prolific but appear over a long period of time and are attractive to nectar-feeding birds.

Banksia heliantha

(previously *Dryandra quercifolia*) (Oak leaved Dryandra)

A medium shrub 2–3 m \times 1–2 m with brownish new growth and attractive yellow to greenish-yellow flowers to 7.5 cm across. They can be profuse and a pink-flowered form is most attractive. We have had the yellowflowered form growing for many years, but unfortunately we have lost the pink-flowered form. An outstanding cut flower as flowers are borne on long stems. Plants have adapted well to a variety of soil conditions. Hardy to drought and frost. A great one to try.





On the Cover

Grevillea preissii ssp. glabrilimba Spider Net Grevillea

Grevillea preissii has two subspecies (ssp. preissii and ssp. glabrilimba) which differ mainly in structure of the hairs on the flowers and foliage.

Grevillea preissii ssp. glabrilimba is endemic to low heaths in nearcoastal areas from Greenhead and Leeman to near Cervantes. WA. While having a restricted distribution in the wild, it is not considered to be under threat.

It prefers a warm, sunny location in welldrained soils, but is fairly adaptable to semishaded and quite moist conditions.

As with virtually every grevillea, *Grevillea* preissii ssp. glabrilimba will brighten any garden. With glabrilimba, the bright red flowers mainly occur from July to September and attract honeyeating birds. Leaves are a greyishgreen. It is a compact, medium shrub that grows to a height of about I m, although smaller forms are sometimes found.

Propagate from seed nicked with a sharp knife or take cutting from firm, current season's growth, although cuttings can be slow to strike.

The species name *preissii* is named after J.A. Ludwig Preiss, a

botanical collector.

If you can't source this plant under this name, then look out for *Grevillea* 'Sea Spray' which is virtually the same plant. Or you can go back to basics and select some other grevillea from the large range available. There's a grevillea perfect for virtually every garden.



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Great Plant Out 2019

Robyn MacLean, APS Wangaratta

was delighted to receive my 2019 Great Plant Out seed packet which contained seeds of *Xerochrysum bracteatum* (Golden Everlasting) and *Rhodanthe chlorocephala* (Pink and White Everlasting). The latter have naturalised in a neighbouring garden and, as they provide a lovely dense pink carpet in spring, I am hoping for similar success in our garden in Benalla.

Last year's seeds of X. bracteatum grew really well in pots and provided a great spring/summer show of bright pink, yellow and bronze daisies. Self-sown seedlings are beginning to sprout in last year's pots, along with self-sown flannel flowers from a nearby plant (but that is another story!).



These large bright yellow flowerheads attract many visitors.

As I had no luck with the seeds from last year's Plant Out when sprinkled on garden beds, I decided to put a bit more effort into soil preparation this year. Several areas in our north-facing garden bed were dug over and homemade compost was incorporated. I gave this a thorough soaking, sprinkled some of the seeds and covered them lightly with seed raising mix. I thought this enriched soil would give the seeds a good chance of germinating but to my chagrin, our resident magpies were also very keen on the lovely worm-laden compost, making a big mess of the carefully prepared areas. I have some seed left so I will have another try, but this time I will cover the areas with gutter guard until/if the seedlings become established.

I have also planted some of the seeds in small Jiffy pots. After sowing I placed them in my small, plastic-covered propagating shelter which is situated in the south-eastern corner of our house. These seeds sprouted in 3 days and are growing really well. They are now ready to plant in the garden in their little pots, so I will make sure they are protected from the birds.

Some members will receive seeds of *Xerochrysum bracteatum* cultivar 'Dargan Hill Monarch', my favourite daisy. They are really easy to propagate and grow (in my little growing tent), by seed, cutting or simply by placing some cuttings in a glass of water and waiting (about 3 weeks) for roots to grow. The grey foliaged plant is neat and has flowered continuously in my garden for the whole summer. Its large bright yellow heads attract many visitors – bees, butterflies and at the base of the plant, lizards!

Good luck with growing your seeds.



In a jiffy these seedlings will be making a great display in the garden.

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Collector's Corner

Neil Marriott

Calostemma purpureum Garland Lily

first saw this gorgeous native lily when as a boy I camped with my parents at Hattah Lakes in north-westVictoria. It was late spring and there were thousands of these beautiful lilies all in flower and fruit along the dunes surrounding the lakes. I was so impressed that I stole a few of the new bulbs that were thickly strewn all over the ground. When I got home we put these on the top of a pot of sandy soil and within a few weeks we had a dozen lovely little plants. Planted into a raised bed, these were flowering within a few short years.

The genus name *Calostemma* comes from Greek and translates to 'beautiful crown', a name most apt when seen in full flower.



A lovely clump of Garland Lily at Panrock Ridge.

Calostemma purpureum grows readily in most open sunny to dappled shade sites in well-drained soils. These can be sandy, gravelly or loamy so long as there is enough depth for the bulbs to establish themselves.

This plant's strategy to resist long dry summers is the strong contractile roots that

slowly drag the bulb deep down into the subsoil. In dry weather the long green fleshy leaves dry up and within a few weeks there is virtually no sign of them. But come a summer thunderstorm or a deep soaking and the plants will explode into life, and erupt from the soil within days of quenching rains.

Within a week the first flower buds begin to open and a few days later there is a mass of showy heads of flowers. These have an attractive sweet perfume, attracting lots of native bees and butterflies to the garden. Within a few weeks the pollinated flowers are swelling to form green spherical fruit. As these mature, they drop to the ground and, with a little moisture they send down a large root and begin the whole process again.

I like to add these around the established clump, so eventually the floral display is most spectacular. Or they can be strewn over a dedicated area to create a most memorable drift when in flower. Alternatively, the bulbs can be gathered and placed on the tops of pots in



Close up of Garland Lily flowers.

a good native potting mix where they will soon shoot and establish as new plants.

Garland Lilies are a widespread plant, once common through much of inland northwest Victoria, South Australia and New South Wales. Sadly most populations have been destroyed by clearing and grazing and now



Neil Marriott

The rare white form of Garland Lily.

plants are considered rare in the wild. A good friend of mine Noel Cartwright from NSW has collected numerous distinct colour forms of the Garland Lily, and I am now the proud owner of beautiful clumps of purple with a yellow centre, pink and even pure white flowered forms.

Calostemma purpureum is a member of the horticulturally popular family Amaryllidaceae, which includes its more famous cousins daffodils, jonquils and nerines. Yet few of us know or grow our very own beautiful members of this cosmopolitan family. This is a real shame, as our Garland Lilies are fabulous in a border, a rockery or as drifts through the garden where they can erupt into flower over the summer months. They also make lovely gifts when mass planted into a deep container.

As well as *Calostemma purpureum* the genus also includes *Calostemma luteum* which is a lovely yellow-flowered species, also from inland south-east Australia, but unlike *C. purpureum*, which is normally found on sandy rises along watercourses, *C. luteum* is found in a wide range of habitats from riparian to grassland, woodlands and even rocky areas. Like *.C purpureum* it also makes a delightful native bulb for the garden, requiring the same conditions for successful cultivation. Regarded by some botanists as simply a yellow flowered form of *C. purpureum*, it is however recognised as a distinct species by the Australian Plant Census. It makes a spectacular summer



The lovely purple and yellow form of Garland Lily.

flowered native substitute for daffodils.

Sadly Calostemma purpureum is seldom available from nurseries; however, we have been growing them for decades and will have a few colour forms available at the upcoming Pomonal Flower Show in the first weekend in October.



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Aussies in a Cowshed

I just can't get enough of walking around in there, inspecting the plants and discovering new buds.

Banksia lanata, 10 years old now, is producing lots of buds at last. I used to have a second plant, sown at the same time, which flowered when four years old and then dropped dead. So I was not too unhappy that this second plant hadn't produced any buds, and I'm rather nervous now, but at least it will be great to see these wonderful flowers again. Time will tell. Judging by the number of developing buds, flowering will be quite spectacular!

The same applies to *Banksia incana* var. *brachyphylla*. My plants, one 10 years old on its own roots and a piece of the same one grafted on *B. integrifolia* seven years ago, have budded up before, but those buds invariably aborted when about 1 cm. This year, however, there are numerous buds on the plants, so at least one should turn into a flower, I'd say. Wishful thinking? A friend told me that a good dose of potash might encourage isopogon buds to fully develop so why not try it on a banksia? I gave each plant a handful of a substance containing potash (K₂O) and magnesium (MgO). Now let's see what happens.

There are loads of first buds on *Petrophile linearis* (Pixie Mops) too, sown November 2015, and on *Isopogon trilobus* (Three-lobed Coneflower), sown a year later: I am sure that by the time you read this I will have fully



The first buds on Petrophile linearis (Pixie Mops)

enjoyed the beauty of them. Such a miracle to be able to enjoy such plants at home in the Netherlands. Other isopogon and petrophile plants are budding up or flowering as well, such as *lsopogon* 'Candy Cones'. They really are a fabulous group of plants, flowering when quite young and small, which is ideal in a pot – or in a small garden.



Isopogon 'Candy Cones'.

Another fabulous group is the kangaroo paws. Some years ago, I pollinated my Anigozanthos viridis (Green Kangaroo Paw) with pollen of A. manglesii (Red-and-green Kangaroo Paw) hoping to obtain plants with the vigor of A. viridis and the looks of A. manglesii. In general, it's quite hard to keep A. manglesii alive over winter, so it would be good to introduce some hardiness. I planted the resulting seed last year and grew several plants that appeared intermediate between the two species. The foliage was nice and robust and the flowers looked either like viridis or like manglesii, Rather attractive! The big issue was: how do these plants cope with our nasty - for them - winter conditions? With a different watering regime - watering from below rather than from the top - I did manage to keep my two plants of A. manglesii alive, but they did suffer. The putative hybrid plants, however, survived with flying colours and flower beautifully at the moment. One of them has a bit of orange in the stem.

Then there is a mystery plant budding up at last. I have been eagerly waiting for its buds to open for weeks now, but they are not



A new Anigozanthos viridis x A. manglesii variety?

going to reveal their secret quickly. This is the story: three years ago I planted a number of Beaufortia elegans (Elegant Beaufortia) seeds in four pots. In all of them a fair number of seedlings appeared which happily grew together. In the one pot, however, one seedling was very different from the others. Very soon the beaufortia seedlings around it dropped dead until the stranger, the cuckoo as it may be called, was the only survivor. Would it be possible that its roots produced a substance that kills competitors, like many eucalypts do? An interesting question. Anyway, the 'cuckoo' definitely is part of the Myrtaceae family, and quite an attractive plant at that, I have to admit. I hope I will be able to tell what it is once the flowers have opened. If not, the marvellous Facebook groups on Australian natives may be able to help identify it.

Of course, I can't just hang around and admire my Aussies; there's work to be done. Most plants desperately need larger pots, which can be a rather awkward task – particularly with the larger plants – due to lack of space in the glasshouses where the plants are closely packed. However I did manage to pot some large plants on that hadn't been re-potted for five years. Poor things. They instantly looked a lot happier!

By the 15th of May, if the risk of frost is over, we can start carrying the plants outdoors for summer, maybe a little earlier if the weather forecasts are fine. It'll take at least four weeks to finish it all, including tidying up the glasshouses and making them ready for summer. And, not



This 'cuckoo' will soon reveal its true identity.

to forget, pruning the plants in the bush area that tend to invade the paths over winter ... Yet we get garden groups asking if they could visit us in May! Unfortunately that's not an option. By the end of June, we will be welcoming visitors again to show them the beauty of Australian natives.



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Seed Bank

Amy Akers

We have had many more orders this quarter. Thirty members have ordered seed since my last report.

I have also undertaken a clean-up of the seed bank with the assistance of Rodger Elliot to remove any seeds that are likely to be no longer viable. A big thanks to Rodger for his help. Accordingly, you will notice that there are more deletions than normal this quarter.

Updates to the seed bank are as follows:

Additions

Brachyscome dissectifolia Calothamnus quadrifidus Eremaea beaufortioides Eucalyptus yarraensis Isopogon anethifolius

We have also received fresh new supplies of Hovea acutifolia, Orthrosanthus multiflorus and Senna odorata.

A big thank you to Joy Greig, Beth Higgins and Chris Fletcher for their generous seed donations.

Deletions

Actinostrobus pyramidalis Ajuga australis Alphitonia excelsa Banksia blechnifolia, B. prionotes Billardiera erubescens (syn. Marianthus erubescens), B. scandens Brachychiton bidwillii, B. discolor, B. × excellens Brachyscome iberidifolia Bursaria spinosa Calytrix flavescens, C. tetragona (pink fl.) Carex fascicularis Carpobrotus rossii Chamaescilla corymbosa Dryandra obtusa, D. plumosa Geijera linearifolia Glischrocaryon aureum Grevillea rhyolitica Hibiscus geranioides Hymenosporum flavum Leptospermum continentale, L. erubescens, L. juniperinum, L. luehmannii, L. obovatum,

L petersonii, L rupestre, L squarrosum Pandorea jasminoides 'Lady Di', P. pandorana 'Ruby Bells' Patersonia occidentalis (white fl.) Podotheca wilsonii Richea scoparia Schoenia cassiniana Senecio pinnatifolius Styphelia tenuiflora Vittadinia gracilis Wahlenbergia stricta Waitzia nitida Xanthorrhoea semiplana ssp. tateana Xanthosia rotundifolia Xyris lanata

Below is some information on species added to the seed bank to assist with your seed selection.

Calothamnus quadrifidus

(One-sided Bottlebrush)

This hardy shrub grows to 2.5 m high by 2.5 m wide and responds well to pruning. It produces bird-attracting red flower spikes in spring, summer and autumn. It is naturally found in south-west WA growing in many different conditions. It prefers an open sunny position in well-drained soil, but can tolerate soil that is moist (but not wet). It tolerates windy and coastal conditions, and is frost tolerant once established.



Calothamnus quadrifidus

oby Hudson (Wilkimedia Commons CC BY-SA 3.0)

Isopogon anethifolius

(Narrow-leaf Drumsticks)

This upright shrub typically grows up to 3 m high by 1.5 m wide. It produces terminal heads of yellow flowers in spring and early summer and globular cones to 2.5 cm in diameter. It is naturally found in dry sclerophyll forest and heath on sandstone on the NSW coast and in the Blue Mountains.

Brachyscome dissectifolia

(Swamp Daisy)

This stoloniferous perennial herb produces mauve or white daisy flowers on stems up to 17 cm tall from spring to autumn. It is naturally found in NSW and grows in swampy ground often along roadsides.

Eremaea beaufortioides

This vigorous spreading shrub grows 0.5– 2.5 m tall and is naturally found growing in sand and lateritic soils in south-west WA. It has showy orange flowers in spring. It requires well-drained soil in full sun or dappled shade and can tolerate moderate frost. It responds well to pruning.

Eucalyptus yarraensis

(Yarra Gum)

This tree typically grows to 15 m and is endemic to Victoria where it is has been found growing from Glengarry (near Traralgon) to Melbourne and across to Daylesford and Ararat. It has rough bark and produces white flowers in summer. It typically grows in heavy clay soils on river flats and flood plains in full sun or part shade. It is frost resistant.

New Seed Bank Curator needed!

I have been assisting as the Seed Bank Curator for over two years now, but unfortunately my situation has recently changed and I have much less spare time to dedicate to the Seed Bank.

If there is anyone who is interested in taking over the position, please email president@apsvic.org.au. I will continue to fill the role for as long as I can until a replacement is found, however, I may take a little longer to fill orders.



Isopogon anethifolius



Eremaea beaufortioides



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Crazy Fasciation

Fasciation in Australian native plants is certainly a fascinating subject. It seems to be like red cars. You don't notice them until someone comments on them and then you see red cars everywhere.

Two further examples of fasciation found by Ivan Margitta are shown here.

Amperea xiphoclada growing at the edge of the bushland in Royal Botanic Gardens Victoria, Cranbourne Gardens showing fasciation in a wild plant, as opposed to a cultivated plant.

Grevillea delta growing at Melton Botanic Gardens, which has been planted in this location as it a native of Western Australia.





Amperea xiphoclada



Grevillea delta



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APS Vic at MIFGS 2019

APSVic's presence at MIFGS 2019 was another success. The impressions of the co-ordinators and those who worked on the display tells of its importance in promoting Australian plants and our Society.

From Dallas & Bernard Boulton:

What an amazing time we had. From 9 am Wednesday to Sunday 5 pm Bernard and I were very busy. The response to our stand was amazing – lots of people looking, asking questions, picking up leaflets and chatting.

During the five days we had help from Glenys and Chris Long, Sue Guymer, Bill Aitchison, Miriam Ford and David Redfern; special mention to Neil Macumber who helped on three days. Also, Tim Morrow offered to help as he was part of the Botanic Gardens team. There were a few others, who when they dropped by, ended up answering questions, which all helped. Thank you all.

On the Tuesday evening we attended the Award Presentation for the Achievable Gardens which is sponsored by the Nursery Garden Industry Victoria (NGIV). We feel this is a very worthwhile project and the young students are very appreciative. For those of you who saw the gardens you would have noticed how many native plants were used.

Thanks to Glen Yearsley, A.B. Bishop, Chloe Foster and of course, Angus Stewart, who spoke passionately about the value of growing native plants. We had two one-hour sessions on the main stage where the speakers spoke to big audiences and imparted their considerable knowledge.

Next year we would like more help. Bernard and I both love Australian plants but neither us have a lot of knowledge so we need some plant enthusiasts.



Miriam Ford

The APS Vic display says it all - Grow Australian!

Growing Australian June 2019

From David Redfern:

My general impression was that the enquiry rate and interest by the general public was much greater than last year on the Sunday that I worked in both years. Many people were drawn to the APS stand by the amazing display of Sturt's Desert Pea (*Swainsona formosa*) trailing from a hanging basket.

The 103,000 attendees over the 4 days were able to witness some magnificent display gardens, with native plants featuring in many of them. Ben Hutchinson's display was a standout with brilliant flower and foliage combinations.

An interesting observation by Megan Backhouse in the Gardening section of the *Saturday Age* (10 April 2019), was that 'the most common plant at the show was the kangaroo paw, while on the tree front, Eucalyptus polyanthemos, with its coin-shaped, blue-grey juvenile leaves, also appeared in lots of gardens'. Maybe natives are finally starting to make inroads into the landscape gardening fraternity.

From Miriam Ford:

The comments from Dallas and David cover my impressions and experience on the day I was there. More help is required. I am willing to create a roster for MIFGS 2020.

I have created two short videos, one of Bernard describing the creation of the display (https://vimeo. com/327402839) and one of Ben Hutchinson's garden (https://vimeo.com/331098959).



Ben Hutchinson's 'Urban Retreat' – a stunning concept using natives.

Foothills Propagation Day 2019

Janet Hodgkiss

e only had a small group for Foothills Group's propagation morning earlier this year, as a few of our regulars were away, but we were very pleased to have two visitors from the Mornington Peninsula group join us. One of them had propagated plants before and got stuck right in, and the other was a very enthusiastic learner. The weather was just right, not too hot and not too cool, even though it was the end of February, so it made for a very pleasant morning all round.

We made up our propagation medium using three parts medium-grade Perlite to one part coir peat. We used a 600 g block of coir peat, which, when fully hydrated, yields about a 9 L bucketful. A handy tip to remember is to use hot water at first to soften it, either from the kettle or the hot water tap, and then continue adding cooler/cold water. If you add too much water when you are softening it and it doesn't all get absorbed, don't worry because it is easy enough to simply drain off the excess water.

We used a clean ice-cream container as our measure for both the Perlite and peat, and dampened down the Perlite as we went, as it sends up an irritating dust. When the Perlite is still dry, standing upwind or wearing a mask also helps with avoiding breathing in this sharp dust.

When there are several of you making cuttings, it helps to prepare the cutting material by laying it out and labelling it. The different plants are easy to see, and the labels allow people to



anet Hodgkiss

Cutting material laid out and labelled, ready for use.

copy the correct plant name onto the label they place in with their cuttings.

Everyone has their preferred secateurs or cutters, but both of the cutters in the picture are lightweight, have extremely sharp blades and are easy to use, but the green-handled snips proved the winner. The narrow, pointed blades allow for delicate and precise snipping, while the small, light spring makes it easy on the hands.



Tools of the trade.

After dipping a cutting into rooting hormone (purple Clonex gel), it is placed in the propagation medium. Sometimes a dibber (thin stick or wooden skewer) is used to make a hole first. This can help avoid crushing/damaging the newly cut surface that has been coated with gel. Some people however don't use dibbers and still have success with their cuttings.

The high density of cuttings in each of these tubes does not appear to hinder root formation. The advantage of doing this means that the cuttings will hold each other up and provide a bit of stability for each other. It also helps save space in your tray if you are doing a lot of cuttings.



Placing a cutting into the mix.

For identification purposes, it is important to label cuttings while doing them. If you have plants that look similar and haven't labelled them, then it is too easy to get their names muddled up later on. Dating is useful to record when the cutting was made and to track how long the cuttings have been in the rooting medium.

After about 4–6 weeks, rootlets should have started forming although some species may take much longer.



anet Hodgkiss

Labelled and dated cuttings.

These leaves in the photo below have been trimmed, not only to reduce the amount of leaf area available for transpiration and subsequent drying out, but also to help them fit into the propagation tube. Not all cuttings need to be trimmed this way, and plants with very small leaves are usually left intact.



Trimmed leaves

Sharing plants, knowledge, tips and stories make for a congenial atmosphere. It's a great place to learn about propagation, and for experienced propagators it's often a very rewarding experience sharing knowledge.

After finishing up and tidying our work space, we always have that most important of things, a 'morning tea', and it doesn't ever matter that our 'morning tea' is usually more of a lunch snack because possibly the best part of mornings like this, is just sitting and chatting with each other afterwards!



Propagation in progress.

Buinea flowers are fierce and golden

Betsy Jackes

Adjunct Professor, James Cook University

first became interested in guinea flowers when I heard of a plant growing in Queensland's White Mountains nicknamed 'excruciating' by all who handled it, because of the pungent needle-like leaves which attached themselves to fingers and clothes.

This species is a guinea flower, now scientifically named *Hibbertia ferox*, meaning 'fierce'. Guinea flowers grow across Australia, from the rainforest to semi-arid areas.

Guinea flowers belong to the genus *Hibbertia*, which dates back to Gondwana. Members of the genus are easy to recognise, but individual species are hard to tell apart. Their brilliant yellow (or sometimes orange) flowers have petals with a notch at the apex, and they were thought to resemble the appearance of the 18th-century coin known as a golden guinea. As usual there are a couple of exceptions – at least two species have petals that lack a notch.

All too often these small shrubs and woody climbers grow in areas likely to be razed for urban sprawl or mining.

What we know about Hibbertia

English merchant and amateur botanist Henry Charles Andrews named the genus Hibbertia after his friend George Hibbert (1757–1837). Andrews was an artist and engraver as well as a botanist, and the first



Hibbertia scandens, a climbing guinea flower, is commonly known as Snake Vine.

Reprinted from THE CONVERSATION

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species he named was based on a plant collected around Port Jackson.

Around 200 species are recognised but there are many unnamed varieties, particularly in tropical areas. Probably the most widespread species and one of the few cultivated is the climbing guinea flower (*Hibbertia scandens*). It can be grown readily from cuttings but germinates slowly from seeds.

Most species have hairs covering the leaves, which can be critical for identifying a species. Under a good hand lens or a simple microscope their variety and beauty is obvious. In some species the hairs are straight. In others they are branched with arms resembling the spokes on a star, the so-called 'stellate hairs'.

Some species have scales – flat, platelike structures – on their leaves and flowers. Sometimes there are large and small scales on the one surface.

The leaves are also diverse in shape and form: some leaves are shaped like a spear and thick, as in *Hibbertia banksii* of the eastern Cape York area, others are needle-like with margins rolled towards the lower midrib, with a sharp, blood-drawing tip, as in *Hibbertia ferox*.

The flowers are usually solitary and roughly 2 cm in diameter; but in some of the northerm species they grow in spikes roughly 4–5 cm across.

Five sepals surround the five petals, which are broadest towards the top. The flowers usually close at night and reopen the next day.

A distinctive feature is the arrangement of the stamens (the male parts). These may be all on one side of the carpels (the structures containing the unfertilised seeds at the centre of the flower) or may form a form a ball in the centre. The number varies between species from fewer than 10 to more than 100.

Floral frolics

For a plant to be involved in sex of a floral kind it needs to offer rewards for services rendered. Sometimes guinea flowers grow



Hibbertia procumbens (Spreading Guinea Flower) at Lake St Clair, Tasmania.

sterile stems, which add to the floral display and provide a food source, particularly for beetles. They are messy eaters, chewing on various plant tissues as they wander around the flower's surface, but they do help to transfer pollen to the stigmas, or female parts (and no doubt are involved in sex with their own kind).

Guinea flowers don't produce nectar to tempt pollinators, but people have reported them producing weak fragrance. There's some dispute over how pleasant the smell is, with some describing it as sweet and others insisting it smells like cow dung. There have been only a couple of reports of what this smell resembles, so we need you to go and stick your nose in a freshly open flower. (Make sure to check – is the fragrance there all day or only in the morning?)

However, there is plenty of pollen. If you look closely at the anthers, those yellow sacs on the top of a thin stalk, you will see either an opening or pore at the top, or a slit down the side through which pollen can escape. Whether the marauding bug causes the pollen to spray



Hibbertia fasciculata showing bundles of small leaves. The flowers have no stalks.

out through the top or it accidentally falls on the bug through the slit, the bug gets dusted in pollen and then this can get brushed off on the female parts or stigma. Bees and flies are the most common bugs seen around guinea flowers.

The fruit is composed of 2–5 loosely adhering capsule-like follicles, surrounded by the five sepals, which remain and do not fall off.

The fruit contains one or two seeds that are covered by a reddish coating or aril. This nutritious tissue is a valuable food source for dispersers such as ants and birds; birds have been recording spreading the seeds of *Hibbertia scandens*. However, in the drier areas where these plants are commonly found, ants appear to be the common dispersers.

So next time you are in the bush don't just ignore that small shrubby plant with yellow flowers and notched petals. Stop and admire their beauty.

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Membership Matters

Anne Langmaid

t has been a dry summer and autumn. All of you know that; all you have to do is look at correas struggling to recognise it. By ANZAC Day my closest gauge at Melbourne Airport had registered 24 mm for the year, around half of what we get most months of the year. No wonder all the plants and animals look so stressed, both in our gardens and elsewhere.

At Melton Botanic Gardens we have delayed planting until there is some moisture in the ground, hopefully June. We are watering some areas by hose to reduce our loses – so far surprisingly few, but most plants look stressed. This would normally not happen once summer has finished. This garden is huge and designed to be maintained on natural rainfall once plants are established. Climate is a harsh mistress; climate change feels more like an assassin.

On the plus side, any plants with a lot of additional water have been growing like mad. The extra sunlight seems to have sped up all forms of propagation. Put seed or cutting near soil and you can almost see the roots forming. Much faster than normal for autumn, I feel.

We have sown seed packets from the Great Plant Out at Melton Nursery, which have been potted on already. We will soon pick out the four species in one pack tray – an interesting challenge for our nursery volunteers. In a garden, they look great mixed, but we can't do that in a nursery.

NOTICE TO ALL MEMBERS

ANNUAL GENERAL MEETING

Saturday 14th September 2019

at 2.00 pm

Auditorium, Royal Botanic Gardens Cranbourne

I really hope that when you are read this we have all had some deep soaking rain, planting season will have started and there have not been too many loses of plants.

We all offer a warm welcome to our latest members:

Craig Gardner, Kurunjang Catherine Kirby, Donvale Phyllis Unsworth, East Geelong Nelson Bellino, Mount Waverley Annie South & Melissa MacPhail, Northcote Chris and Jenny Osborne, Springvale Andrea Himmelspach, Greensborough Jacqueline Oldham, Glen Iris Karen Garth, Badger Creek Jillian Goodge & Ian Nutt, Gisborne Meg Byers, Drouin Judith Meikle, Darnley



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Wheels of Fire

Helen van Riet

mongst the giant London Plane Trees that dominate the King George V Gardens in Wangaratta, the observant plant enthusiast will spot some rare and fascinating Australian rainforest trees. Two of interest are a large Black Bean or Moreton Bay Chestnut (Castanospermum australe) growing adjacent to Rowan Street, and a slender tree of exceptional beauty - the Firewheel Tree (Stenocarpus sinuatus). This grows alongside a transecting path leading from the children's playground to Ovens Street.

Look up! From February to May you will be delighted with large, orange-red wagon wheels glowing in profusion among lobed glossy deep green leaves.

Firewheel trees are native to New South Wales and Queensland. They are great birdattractors and make a lovely garden specimen. Although they may reach 30 m in their native habitat, in cultivation they are slow-growing, and may attain 5 m in about 12-15 years. A Firewheel Tree could be a delightful feature or shade tree in your garden, depending on the size of your garden. They are a popular street tree in Australia, and are planted extensively in USA and parts of Europe.

Established plants are available from local nurseries. Choose a position in full sun or part shade. More rapid establishment can be aided by mulching with well-rotted compost and the addition of a low-phosphorus fertiliser. Keep well-watered during dry times, but, once established, they will tolerate dry periods. They can be lightly pruned to encourage a pleasing shape. Protect from severe frost until established.



Unripe fruit. When ripe the dark brown, woody capsules are filled with brown, papery seeds.

Seed-grown plants will flower in about 6–7 years. Like many rainforest trees, flowers may emerge from the trunk and bare stems as well as from previous year's growth.

The 14-spoke wagon-wheelshaped flowers appear from February, lasting until late May. Clusters of seed capsules which follow the flowering period are large, solid and boat-shaped. They hold a profusion of papery seeds.

Our garden specimens are 14 years old and are about 4 m high. We propagated our specimens from locally collected seed. (GA)



The vibrant red 14-spoke wagon-wheel-shaped flowers.

elen van Riet

Out and About

Nicky Zanen

oes anyone else get into a deep state of meditation while removing gum leaves away from the stems of plants? I also find I ponder big world questions, such as whether anyone has researched and weighed how much litter is dropped by each tree, and at which times of the year the heaviest drops occur? And how you can tell who has been in the Open Garden Scheme. When they visit they automatically remove branches and leaves that have fallen on other plants.

My unit is closest to a row of gums that back a railway line and communal garden area. These include Lemon-scented Gums (*Corymbia citriodora*), Spotted Gums (*Corymbia maculata*) and Southern Mahogany (*Eucalyptus botryoides*). Underneath these trees I am trying to grow an understorey with mixed success. What has done well includes *Brachyscome multifidi* (Cut-leaf Daisy), *Goodenia amplexans*, Veronica arenaria and a mixture of *Thomasia* species picked up at the FJC Rogers Seminar in Bendigo several years ago.



Talk of pruning these trees left me emotional and defensive.

The veronica is a favourite of mine because I have managed to propagate it and have planted several. Best of all is the fine blue flowers display over summer. Much to my delight, another veronica, *Veronica perfoliata*, has self-sown in this area and is thriving. Its leaves remind me so much of eucalypt leaves.

Growing too quickly are two *Acacia leprosa* (Cinnamon Wattle) that I planted near the railway. If I don't prune them regularly they'll grow out of hand.

Although the trees challenge me in having an understorey, I regard these as a major asset. They attract loads of birds including an occasional Boobook, daily Magpie visits, and every so often fruit bats that visit each year for a couple of weeks. Recently there was talk of having these trees pruned, and I was surprised at just how emotional I felt about this, and how I became very defensive.

One of my neighbours is crazy about pruning and has developed an interesting hedge out of lillypilly. One of our APS Foothills members termed it 'Syzygiosaurus' – our own dinosaur.



The lillipilly 'Syzygiosaurus'.

Talking about using Syzygium to hedge, I recently found an interesting example of what can be done with lillypilly at the Forest Hills Shopping Centre. A 3-dimensional leaf sculpture was created using a tree pruned into a ball shape, standing above two hedges of different heights. The lower rectangle was formed of

Growing Australian June 2019



A 3-dimensional sculpture at Forest Hills Shopping Centre.

lillypilly leaves and a second rectangle behind that was made of darker leaves. The ball shape was heavily fruiting.

I was deeply saddened to see a magnificent specimen of a *Hakea laurina* had been cut to the ground in the nature strip near my old home. It had grown to a nice steady height and was a distinctive weeping form. Every second year it would burst into flower and was a highlight of my visits to this area. Now there is a stump, circled with yellow paint. This dear tree had toppled over and within a day it was removed. It was near on 40 years old, but from the photo, you will see just how diseased it was.

There is a lot of emotion in both gardening and observing.



The ball-shaped pruned lillypilly.



The hakea's stump shows the condition of the centre of the trunk.



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Eucalypts are iconic Australian trees.

ucalypts dominate Australia's landscape like no other plant group in the world.

Europe's pine forests consist of many different types of trees. North America's forests change over the width of the continent, from redwood, to pine and oak, to deserts and grassland. Africa is a mixture of savannah, rainforest and desert. South America has rainforests that contain the most diversity of trees in one place. Antarctica has tree fossils.

But in Australia we have the eucalypts, an informal name for three plant genera: *Angophora, Corymbia* and *Eucalyptus*. They are the dominant tree in great diversity just about everywhere, except for a small region of mulga, rainforest and some deserts.

My research, published in Australian Systematic Botany¹, has sequenced the DNA of more than 700 eucalypt species to map how they came to dominate the continent. We found eucalypts have been in Australia for at least 60 million years, but a comparatively recent explosion in diversity 2 million years ago is the secret to their spread across southern Australia.

Hundreds of species

The oldest known Eucalyptus macrofossil, from Patagonia, in South America, is 52 million years old. The fossil pollen record also provides evidence of eucalypts in Australia for 45 million years, with the oldest specimen coming from Bass Strait.

Despite the antiquity of the eucalypts, researchers assumed they did not begin to spread around Australia until the continent began

¹Thornhill, A.H., Crisp, M.D., Külheim, C., Lam, K.E., Nelson, L.A., Yeates D.K., and Miller, J.T. (2019) A dated molecular perspective of eucalypt taxonomy, evolution and diversification. *Australian Systematic Botany* 32(1) pp.29–48.

A detailed eucalypt family tree helps us see how they came to dominate Australia

Andrew Thornhill, Research botanist, James Cook University



drying up around 20 million years ago, when Australia was covered in rainforests. But once drier environmental conditions kicked in, the eucalypts seized their chance and took over; especially in south-eastern Australia.

There are over 800 described species of eucalypts. Most of them are native only to Australia, although some have managed to naturally escape further north to New Guinea, Timor and Indonesia. Many eucalypts have been introduced to other parts of the world, including California, where Aussie eucalypts make cameos in Hollywood movies.

Eucalypts can grow as tall trees, as various multi-trunk or single-trunk trees, or in rare cases



Eucalypts are classified by their various characteristics, including the number of buds.

as shrubs. The combination of main characteristics – such as leaf shape, fruit shape, bud number and bark type – provided botanists with enough evidence to describe 800 species and estimate how they were all related to each other, a field of science known as 'taxonomy'.

Since the 1990s and early 2000s, taxonomy has been slightly superseded by a new field called 'phylogenetics'. This is the study of how organisms are related to each other using DNA, which produces something akin to a family tree.

Phylogenetics still relies on the species to be named though, so there is something to sample. New scientific fields rely on the old. There have been a number of eucalypt phylogenetic studies over the years, but none have ever sampled all of the eucalypt species in one phylogeny.

Our new paper in *Australian Systematic Botany* aimed to change that.We attempted to genetically sample every described eucalypt species and place them in one phylogeny to determine how they are related to each other.We sampled 711 species (86% of all eucalypts) as well as rainforest species considered most closely related to the eucalypts.

We also dated the phylogeny by timestamping certain parts using the ages of the fossils mentioned above. This allowed us to estimate how old eucalypt groups are and when they separated from each other in the past.

Not so ancient

We found that the eucalypts are an old group that date back at least 60 million years. This aligns with previous studies and the fossil record. However, a lot of the diversification in the *Eucalyptus* genus has happened only in the last 2 million years.

Hundreds of species have appeared very recently in evolutionary history. Studies on other organisms have shown rapid diversification, but none of them compare to the eucalypts. Many species of the eucalypt forests of south-eastern Australia are new in evolutionary terms (10 million years or less).

This includes many of the tall eucalypts that grow in the wet forests of southern Australia. They are not, as was previously assumed, ancient remnants from Gondwana, a supercontinent that gradually broke up between 180 million and 45 million years ago and resulted in the continents of Australia, Africa, South America and Antarctica, as well as India, New Zealand, New Guinea and New Caledonia.

The eucalypts that grow natively overseas have only made it out from Australia in the last 2 million years or less. Other groups in the eucalypts such as *Angophora* and *Corymbia* didn't exhibit the same rapid diversification as the *Eucalyptus* species.

What we confirmed with the fossil record using our phylogeny is that until very recently, and I mean in terms of the Earth being 4 billion years old, the vegetation of south-eastern Australia was vastly different.

At some point in the last 2–10 million years the *Eucalyptus* arrived in new environmental conditions. They thrived, they most likely helped spread fire to wipe out their competition, and they then rapidly changed their physical form to give us the many species that we see today.

Very few other groups in the world have made this amount of change so quickly, and arguably dramatically. The east coast of Australia would look very different if it wasn't dominated by gum trees.

The next time you're in a eucalypt forest, take a look around and notice all of the different types of bark and gumnuts and leaves on the trees, and know that all of that diversity has happened quite recently, but with a deep and long link to trees that once grew in Gondwana.

They have been highly advantageous, highly adaptable and, with the exception of a small number of species, are uniquely Australian. They are, as the press would put it, 'a great Australian success story'.



Eucalyptus sideroxylon in flower.

Study Group Roundup

Phil Royce

Goodeniaceae April 2019

This is the 'reformation' newsletter by the study group. Its leader is Royce Raleigh while the newsletter editor is Maree Goods, and the email address is goodeniaceaestudygroup@ gmail.com. The contents are varied with lots of photographs, and include an explanation of the study group's 'seed' money.

Amongst the articles, Royce provides his story of how he became interested in this group of plants, starting in the mid-1970s. He also describes lechenaultias previously common but now hard to find.

Several pages share members' experiences of propagating leaf cuttings. Then follows Roger Elliot on a slightly different tack – propagating from seeds.

Goodeniaceae are clearly not limited to western Victoria. Catriona Bate and Phil Trickett report on their experience with pot- and garden-based plants on the NSW South Coast – *Scaevola*, *Damperia*, *Lechenaultia* and *Goodenia* species are mentioned.

Maree Goods concludes this newsletter with an article and photos of the Goodeniaceae in her own garden.

Fern no.142 (Feb 2019)

Peter Bostock, leader and editor, opens up with a list of member events for March to June for the south-east Queensland and Sydney areas (one a month). Then follow reports by members who participated in excursions to Mooloolah River National Park, Mary Caimcross Park and Mt Wilson's Happy Valley Track during August 2018. An amazing photo from the Mary Caimcross trip showed a filmy fern, *Crepidomanes vitiense*, growing on the bark of the tree.

Members of the study group have established a searchable service of the study group's newsletters accessed on the website About Ferns (www.aboutferns.org/).

Hakea no. 69 (Feb 2019)

Leader and newsletter editor, Paul Kennedy, shares stories and member experiences from the summer months. A common theme sadly appears to have been the hakea toll within Victorian gardens.

Paul completes the report of the October 2018 hakea excursion to WA. He describes the species, appearance, soil and location of about 10 hakeas identified during this section of the excursion.

Hans Griesser of South Australia describes a proposal for the Hakea Study Group members to collect photographs of young seedlings and build on initial work at the SA State Herbarium. Paul invites group members to get engaged, noting that Dean Nicolle, the eucalypt wizard, has had paintings made of 1,000+ eucalypts at the seedling stage.

An explanation of the colour changes seen in the leaves of *Hakea victoria* that had grown in the Fitzgerald National Park is given by Charles Gardiner.

Eremophila no. 122 (Feb 2019)

Leader and newsletter editor Lyndal Thorborn has created a 25-page bounty. I thoroughly engaged with the articles and photographs on every page, particularly, as an ex-chemistry teacher, the one about eremophila phytochemicals.

A great two-page article by Bronwyn Blake, Ros Walcott and Ben Walcott was titled 'Eremophilas in the National Arboretum Terra Australis Garden'. It opened in Canberra's windy site in November last year. The story included a really informative plant layout diagram and handy photos.

Lyndal then alerted members to some misidentification of *Eremophila* species in nurseries, and seeks reports from the membership when it was detected so that change can be effected.

She followed up with a multi-page article on the feature species – *Eremophila alternifolia*. The species' physical features, horticulture, propagation and hybrids are very well supported with some classy photos.

Then follows an alluring article by a couple of academics, one of whom is a University of New England PhD student, who examine, amongst other things, eremophila phytochemicals. The chemicals of interest are those with antimicrobial and antiviral properties.

However, the phytochemicals are also useful in taxonomic applications. To date a database has been created with details of the phytochemicals of 117 *Eremophila* species. For a sticky beak, go to www.eremochem.com and you'll be staggered, and wanting more. The student would like more samples, so if you can assist contact Dane at dlyddiard2@une.edu.au with the name of the eremophila from which you could supply a couple of leaves. [Phil note: Is work being done on the phytochemicals of other Australian natives?]

Several members reported finding an



Eremophila alternifolia

error when using the Chinnock's key to the *Eremophila maculata* species.

The newsletter featured information and photos of *Eremophila nivea* (Silky Eremophila), *E. glabra* (lime-yellow or 'Bev Rice') and *E. maculata* ('Pink Mini' or 'Minnie Pink').

The newsletter also contains a two-member conversation about pruning *E. acrida* (Bushy Park form).



An edible hedge

Helen van Riet

Saltbush Ы Man (Atriplex nummularia) is an iconic Australian plant. For many, it is symbolic of 'the inland' - remote and distant from our gardens and our cities. With the increasing prevalence of hotter, drier summers and erratic rainfall coming close to home, this perception has changed significantly. Gardeners are seeking Australian plants which are reliable, attractive, water-wise and resilient.

There are over 250 species of *Atriplex* worldwide, with about 60 in Australia. Mountain Spinach (*Atriplex hortensis*) has been grown as a food plant for thousands of years. It is cultivated in Europe as Orache.

Early settlers recognised and utilised a member of this widespread family – Old Man Saltbush as a food and fodder plant. The name is derived from Latin: atriplexum = the food plant orache, and nummus = a coin, referring to the leaves of Old Man Saltbush which are coin-shaped.

Old Man Saltbush features in the bush tucker





revival. It is now planted extensively and harvested for human consumption by gourmet cooks and as a reliable stock food. Saltbushfed lambs fetch top dollars. Its leaves have a slightly salty taste. Young leaves, picked fresh, are a tasty addition to a tossed salad.

It is an attractive and versatile garden plant. The silvery-grey foliage has a shiny, waxy appearance. It is very adaptable and can be grown successfully on most soils. It tolerates severe droughts, periodic flooding, frost, and extreme heat.

Left unpruned plants can

reach 3 m. It blends attractively with other hardy shrubs e.g. *Correa glabra* for an informal hedge. Clipped, it makes a beautiful silvery hedge which is somewhat fire-retardant. The leaves are not prickly.

A new release by Austraflora is *Atriplex nummularia* 'Silver Holly', with holly-shaped, wavy leaves.

All saltbushes thrive in a sunny position. They are fast-growing and can be shaped by regular tip pruning. As a pot plant, in the garden or in the vegie patch, this versatile Australian is a practical choice and a great conversation piece.

Member discounts at select native nurseries

APS Vic has recently negotiated discounts for members at several native plant nurseries. These are shown with a red symbol on the listing on our website.

To identify yourself as a member when asking for a discount show the label on the front of your *Growing Australian* mail out envelope. Put the envelope in the glovebox of your car so that you always have it available.

Unusual 'grafting'

Matt Leach

have noticed a strange occurrence growing on the Kevin Hoffman Walk in Lara. The two plants are *Eremophila mackinlayi* and *Myoporum insulare* growing as one. However, they are grafted the wrong way for starters. Usually the myoporum would be the root stock and the eremophila would be the scion or the plant material grafted onto the myoporum.

What makes this stranger is that I know the eremophila was grown by my father as a cutting with no grafting of any other plant material to it. Previously in this same area of the Kevin Hoffman Walk we did have some grafted eremophilas that had died off, leaving the *Myoporum insulare* behind.

Since this, we have removed the remaining myoporums, by means of being pulled out, cut out and poisoned. These were replaced with donated eremophilas, as well as the cutting grown *Eremophila mackinlayi*.

A few months ago rabbits attacked (ate) the *Eremophila mackinlayi* breaking the top off and most of the other growth, so a tree guard was placed around it. After this was in place I noticed a few weeks later a new shoot growing from the broken top that looked a little odd and different to the expected leaf shape and colour of the eremophila.

I kept a close eye on this new shoot and to my amazement it kept looking more likely to be new growth of a *Myoporum* species. Now it looks to be *Myoporum* insulare. Does anyone have an explanation to how this can occur?

Also spotted on the Kevin Hoffman Walk was an unusual flowering of *Banksia integrifolia* 'Roller Coaster' (below).



Banksia integrifolia 'Roller Coaster'.



Eremophila mackinlayi and Myoporum insulare growing as one.



Close-up of the 'graft'.





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Events Diary 2019

15 June – APS Geelong hosts Committee of Management meeting.

22 & 23 June – APS Ballarat Winter Flower Show celebrating flowers grown locally in members gardens in winter: Robert Clark Centre, Ballarat Botanic Gardens, Gillies St, Ballarat. 10.30 am–3.30 pm.

27 & 28 July – Cranbourne Friends Winter Plant Sale. 10 am–4 pm.

14 September – Committee of Management meeting (10 am), AGM (2 pm). Auditorium, Royal Botanic Gardens Cranbourne.

14 & 15 September – APS Yarra Yarra Australian Plants Expo. Eltham Community & Reception Centre, 801 Main Rd, Eltham. 10 am– 4 pm. Check apsyarrayarra.org.au for plant lists.

21 & 22 September – 50th Anniversary of Anglesea Wildflower Weekend and Art Show. Celebrating the area's remarkable biodiversity and wildflowers. Anglesea Memorial Hall, 3 McMillan St, Anglesea 10 am–4 pm.

21 & 22 September – APS Bendigo Flower Show. Kangaroo Flat Primary School Gym, Freeman Drive, Kangaroo Flat, Bendigo. 9.30 am–4.00 pm.

24 September–20 October – Maranoa Gardens Florilegium. Town Hall Gallery, 360 Burwood Rd, Hawthorn. Twelve local artists from the Balwyn Community Botanical Art Group have painted an exquisite series of plant specimens picked by the curators of Maranoa Gardens in Balwyn. These intricate botanical paintings document the fascinating flora of the Maranoa Gardens, one of the oldest surviving gardens to exclusively feature Australian native plants. Filled with watercolour paintings and drawings in pencil, pen and ink, this exhibition celebrates the collective artistic achievement of these dedicated botanical artists. Free entry.

30 September–4 October – ANPSA 2019 Conference – Blooming Biodiversity. Hosted by Wildflower Society of Western Australian in Albany, WA. Pre- and post-conference tours between 21 September to 11 October: Details www.bloomingbiodiversity.com.au. **5 & 6 October** – APS Grampians Group Pomonal Native Flower Show. Pomonal Hall. 9.30 am–5 pm on Saturday, 10 am–4 pm on Sunday.

12 October – APS Echuca Moama Native Flower Showcase, Echuca Masonic Lodge Hall, 426 High St, Echuca. 9 am–4 pm. A huge flower display, plant sales, floral art, native bonsai, basket weaving and other displays and demonstrations.

12 & 13 October – APS South Gippsland Native Plant Sale and Flower Show. South Gippsland Historical Automobile Club Pavilion, Leongatha Recreation Reserve. 10am-4pm.

12 & 13 October – Wimmera Growers of Australian Plants at Horsham Spring Garden Festival, Horsham Botanical Gardens, Firebrace St, Horsham. 8 am–5 pm.

19 October – APS Mitchell Plant Expo and Sale. Kilmore Memorial Hall, 14 Sydney St, Kilmore. 9 am–3 pm.

26 & 27 October – APS Ballarat Spring Flower Show, flower display, plant sales, craft items. Robert Clark Centre Ballarat Botanic Gardens, Gilles St, Ballarat. 10 am–4 pm.

26 & 27 October – Cranbourne Friends Spring Plant Sale. I 0 am–4 pm.

November – APS Bendigo hosts Committee of Management meeting. (Date to be confirmed.)

17 February to 17 April 2020 -

Australian Plants Revealed – an exhibition highlighting banksias and unique Australian flora in commemoration of the 250th anniversary of the arrival of Banks and Solander with Captain Cook on the Endeavour. Maroondah Federation Estate Gallery, 32 Greenwood Ave, Ringwood.

2020 – 1 3th FJC Rogers Seminar on Lamiaceae: subfamily Prostantheroideae (the mint family) including sub-groups Prostanthera and Westringia. Co-ordinated by APS Yarra Yarra. Dates to be advised.

Research report

Barbara Buchanan

he March Growing Australian, specifically the articles on the effect of phosphorus, has stirred up my idea of what a Research Officer could do.APS has an enormous amount of incidental information on how to grow plants well.

If my memory is correct (and it's getting shaky these days) I think I recorded in this journal a note that I was impressed by seeing a roadside in Western Australia where *Chamelaucium ciliatum* growing next to the fence of a healthy wheat crop was unusually lush compared to plants with no obvious access to phosphate fertiliser. While these observations provide only circumstantial evidence to support the theory that phosphate improves the growth of these plants, at this point it is not supported by solid scientific research. More rigorous trials are needed to provide a solid scientific base. The amateur observations of APS study groups provide ideas and guidelines for scientific research.

Back in its glory days, the Daisy Study Group actually ran simple experiments on seed germination as part of the material for their first book Australian Daisies for Gardens and Floral Art and then for two subsequent books - Australian Brachyscomes and Everlasting Daisies of Australia. As a participant in these activities I failed badly in the experimental side - none of my seed germinated, nor was I nearly as sharp eyed in the field or able to take extensive field trips to complete the collection of all species of brachycomes as the leaders of the group, but I learnt a lot and enjoyed the experience immensely. Our leaders maintained contact with scientists in herbaria. Just writing about it all makes me want to hunt out my old newsletters and relive those days.

The Grevillea Study Group took longer to go into print; they had many more species to collect and consider. Again there was a nucleus of very involved members, the best known being the authors of the three-volume set *The Grevillea Book*, Peter Olde and Neil Marriott. When volume I first appeared I was quite disappointed – no detailed descriptions of individual species – but I soon realised my mistake, given the promise that these descriptions would occur in volumes 2 and 3. Instead there is a wonderful ecological, taxonomic and historical background to the genus. The young in the family turn to Google these days for their information; I go first to Marriott and Olde volume 2 and 3 and hope my quarry was in cultivation when it was written.

Grevillea Study Group members are still at it finding new forms, producing more and more mouth-watering hybrids, and compiling lists of compatible root stocks through informal networks. There is on-going collaboration with scientists as the grevilleas are steadily increasing in horticultural use.

The Eremophila Study Group has a core of eremophila fans who have devoted many outback excursions to their favourite plants, which has led to finding and bringing into cultivation many new species. They established small and not so small eremophila-based gardens in local townships, and co-operated with the South Australian Herbarium, where a major effort into Eremophila taxonomy was progressing.

R. J. Chinnock from the Herbarium published the scientific monograph *Eremophila* and Allied Genera: A Monograph of the Plant Family Myoporaceae, and APS members produced *Eremophilas* for the Garden, both books acknowledging their debt to the other. *Eremophilas* for the Gardens is invaluable here, a real wake-up call about plants I had largely ignored as not suited to gardens in the Dandenongs and Myrrhee. I admit I was wrong there, although I do find they do better in the drier air of the plains.

These are just a few examples of the contribution of APS members to the increasing scientific knowledge of our flora. We need to encourage more groups to start concentrating on a favourite area, and asking: What do we want to know? How can we do it? What will we require? How do you germinate seeds successfully?

As Research Officer I encourage groups, both study groups and district groups, and even informal groups of like-minded members to think about undertaking simple projects. Who knows what might grow?

What is the fuss about social media and how does it work?

Kevin Sparrow

Social media is a fact of life and it will not be going away! Like many things, it can be used for good or for bad. Used for good, it can be a useful tool, especially for community groups who lack the funds to advertise their activities. It is free, but you do need to understand it and how to get the best out of it. I can see all you non-Facebook people screwing up your noses now at the thought. There are other social media platforms but for this article, I will keep my comments solely about Facebook.

Facebook is a news service that the average person can use to keep up with the world, their families, and promote themselves or their involvements. In the current day, where many of our newspapers are busy pushing a blatantly political view, the average person can have their say on current issues and share it among their friends. By becoming 'friends' with people on Facebook, their posts will be shared with them.

By putting up a post on Facebook, it is like dropping a pebble in a pond and watching the ripples extend out to your friends through your network. If your network friends also re-share your post to their friends (drop the pebble in their pond) and they share it to their friends, in no time your post has gone out to hundreds of people. Of course, a 'large pebble' post, one that appeals to the average person, is much more likely to be shared. Photos for example of cute animals/beautiful flowers etc. will most likely be shared. Boring things will go nowhere.

Of course you have to rely on your network to re-share, and it works both ways. (Ask them to re-share and offer to re-share theirs). If they put up something, you need to 'Like', 'Comment' or 'Share' the post. This signals to Facebook that you are interested in this person's posts, so you are more likely to get their posts in future. To start off with, only a small number of your friends' posts will go through to you unless you do any of the above. 'Like' will only show minor interest, while 'Commenting' and 'Sharing' will show a stronger wish to receive their posts in future. The more you 'Share', the more the posts will be spread around. If you do nothing, the post will stop with you.

A good network will willingly re-share posts so that your activities and special events can be freely promoted throughout the community. Contact your friends and family on Facebook and ask them to be 'friends' to build up your network. You can spend a lot of money on newspaper advertising but if people don't buy newspapers, they don't see them. This is free! Everybody has a mobile phone in their pocket AND they use them!



How can community groups benefit from this? We are unlikely to get a surge of new members; that is not the aim. But we can become much better known within the community and the interests and activities that we carry out. In a time when many community groups are ageing and struggling to find new members, this can only help. To do nothing is to admit defeat, and invite eventual closure through lack of members.

APS Warrnambool has a Facebook page. I regularly put up interesting posts, photos of pretty flowers, happy people doing interesting things, anything that will paint our group in a positive light. I also 'Share' posts from other APS groups, anything that might be of interest to people. It is surprising how many people actually view these posts. This can only encourage people to grow Australian native plants. Our page is www.facebook.com/warmamboolsgap/.

Finally, I used email and Facebook to promote the launch of our book *Nature Reserves of Warrnambool & District* in February. Maybe this was a fluke, but we had 50 people attend the launch AND it cost us NOTHING!

Conservation Report

Neil R Marriott

ictoria is experiencing the driest start to a year EVER ON RECORD! Our gardens here in the Black Range have succumbed disastrously, with many deaths. Even large old established trees and shrubs are now dying. Beautiful big old Banksias have been the worst hit - from a plantation of 250 beautifully floriferous Banksia coccinea we now only have three plants left! Discussions with fellow members of our Grampians APS Group reveal similar stories of massive losses.

Gardening for wildlife/conservation

As mentioned in my last report, APS Grampians has 'Gardening for Wildlife' as its theme for the year and for our annual flower show, and I have also been advised that APS East Gippsland has 'Conservation' as its theme for the year. This is wonderful to hear as it clearly reflects one of the major goals of APS Vic - the conservation of our unique flora (and its associated fauna) in its natural environment as well as in our own gardens.

In the face of unprecedented attacks on our natural environment, it is time for APS Vic to become far more actively involved in the promotion of the conservation of our rare flora. I call on our Society to use our scientific expertise to lobby for change in the face of the current, blatant disregard for our natural environment. We need to be vocal about the impacts on our environment by government decisions, or in a few short decades our natural environment will be severely degraded. Our Society cannot simply continue as a gardening club - we need to become relevant to younger members of society if we are to survive! Please let me know your opinions on this, and your suggestions on how we can approach it.

Critically endangered grevilleas destoyed

In the latest Grevillea Study Group newsletter, I wrote a detailed article outlining the blatant destruction in the northern wheatbelt of WA of the only two known locations for the Critically endangered Grevillea squiresiae. The tragedy was compounded by the fact that this destruction was done by local government staff grading local

roadsides - but not just keeping the road verges clear, the clearing went right into the bushland beyond the road, and right over Environment Department 'significant flora' stakes, which are placed to warn grader operators of areas to be avoided! And both roads were nothing more than minor backroads that hardly ever have traffic.

This is now happening so frequently in WA that many critically endangered plants, only found on roadsides due to overclearing in the past, will soon become extinct. The Wildflower Society of Western Australia is trying to curb this ignorant destruction with only minor success. APS Vic has written to the Premier and relevant Ministers and we await their response. I have received notification from the WA environment. department indicating that they are looking into the breaches. If this were an individual, the fines are a minimum of \$6,000 for each offence. I very much doubt any such fine for the local shires, but will keep you informed.

Following this vandalism, this beautiful small shrub is now more common in our gardens than in the wild. Our Societys' motto of 'Preservation by Cultivation' is again proving to be so apt.



Grevillea squiresiae

Death of the Murray-Darling River system?

Graphic and shocking footage of the millions of dead fish in the lower Darling earlier in 2019, followed by further mass deaths elsewhere in the Murray-Darling Basin, point to a catastrophic decline in recent years of the river system's health.

Threat abatement plan for Phytopthera cinnamoni

The Federal Minister for the Environment, Melissa Price, has launched the Threat abatement plan for disease in natural ecosystems caused by *Phytophthora cinnamomi*¹. The new plan addresses the key threatening process – dieback caused by the root-rot fungus *Phytophthora cinnamomi*. It identifies actions to ensure the long-term survival of native species and ecological communities affected by Phytophthora dieback. The plan focuses on the need for further research on the pathogen and its management options; prioritisation of assets in need of protection; and community engagement to prevent spread of the disease.

A win on the Western Highway

A court challenge to the granting of permission for this destructive stage of the Western Highway upgrade by the Federal Minister for the Environment, Melissa Price, resulted in the judge revoking that permission on at least four legal grounds. These included the Minister using incorrect cost estimates, incorrect road fatality statistics as well as denying opponent court challengers due process.

Insect 'Armageddon'?

From Field Naturalists News no.295, comes the following alarming note by FNCV President Maxwell Campbell: 'Over recent months there has been some concern registered internationally about the reduction in the numbers of invertebrates, notably insects. Human activity in its various forms seems to be causing an insect "Armageddon". As always there is a balance to be struck between scientifically supported research and what might be considered as anecdotal. However, there seems to be a lot of smoke, so many people are looking for the fire. I know that my trips around the countryside these days are rarely troubled by insects splattering on the windscreen or radiators clogging with their desiccated bodies. As a child camping on the Mornington Peninsula in the 1950s and 60s I was always amazed by the number and variety of insects attracted to the Tilley lamp at night. There were many large beetles, moths, megalopterans, neuropterans and mantids. In fact, we had to carefully fit insect guards to protect the delicate lamp mantle. I no longer see the numbers and variety that I used to encounter. In the last few weeks there have been reports of significant drops in the numbers of Bogong Moths on the high plains. On our property at Suggan Buggan I can run the camping lights at night without too much fear of the overwhelming number of insect visitors of a few decades ago'.

It is so important that we stop using deadly chemicals to control insects on our plants – a good healthy native garden will soon reach a natural balance, and pesky caterpillars can simply be pinched off and stomped on! Lerps and scale can be controlled with white oil or better still, soapy water. Soon the native birds and insect predators will even do all that for you!

Adani approval

The Federal Minister for the Environment, Melissa Price, granted approval for the controversial Adani coal mine in the Galilee Basin, Queensland, one week prior to the election announcement. Prime Minister Scott Morrison stated that this was all above board as the decision was based entirely on science, with CSIRO and Geoscience Australia both giving the mine a tick of approval. Not surprisingly, both these authorities came out a few days later refuting this claim.

And the huge problem is that Adani is the first of around six coal mines proposed for the Galilee Basin. And with this many mines operating, is the impact on the entire Great Artesian Basin, with its thousands of dependant farms, outback springs and associated unique flora and fauna.

Please feel free to contact me if you have any conservation issues or problems that you need help with, or anything that you think I need to raise in this column. Thank you for the positive feedback and frequent encouragement received about my column, members are saying I keep them up to date with conservation issues around the country.

However, if you feel I am too political, please put pen to paper and let me know how we can protect our unique flora! Contact me at neil@ whitegumsaustralia.com.

¹The plan and background document are available at www.environment.gov.au/biodiversity/threatened/ publications/threat-abatement-plan-disease-naturalecosystems-caused-phytophthora-cinnamomi-2018.

Study Group Directory

Study groups are a great way to learn more about Australian plants and you don't need to be an expert to belong to a group. So take a look at this list and contact the relevant person to join up. Some groups are email only and charge no fee, others charge a minimal fee. Contact the relevant leader for current fees.

Acacia

Bill Aitchison (Leader) 13 Conos Court, Donvale Vic 3111 acaciastudygroup@gmail.com 03 9872 3583

Australian Plants as Bonsai

In recess

Australian Food Plants

Sheryl Backhouse (Leader) 201 Old Mt Samson Rd, Mt Samson Qld 4520 australianfoodplants@gmail.com 07 3289 4198 email only, no fee

Australian Plants For Containers

Lynne Mockridge (Leader) PO Box 813, Kings Meadow Tas 7249 mockridge.lynne@gmail.com 0437 944 595 email only, no fee

Banksia

Kevin and Kathy Collins (Leaders) PO Box 132 Mt Barker WA 6324 banksia@comswest.net.au 08 9851 1770

Brachychiton and Allied Genera

Kerry Rathie (Leader) 6 Bright St,Toowoomba South Qld 4350 krathie6@bigpond.com 07 4638 4305

Correa

Dot and Bob O'Neill (Leaders) 7 Hillsmeade Dve, Narre Warren South Vic 3283 oneills777@gmail.com 0428 882 068 Russell Dahms (Admin and Editor) 13 Everest Ave, Athelstone SA 5076 rdahms@internode.on.net 08 8336 5275 email only, no fee

Dryandra

Margaret Pieroni (Leader) 22 Ravenhill Heights, Denmark WA 6333 mpieroni@bigpond.com 08 9848 3331

Eremophila

Lyndal Thorburn (Leader) 3 Considine Close, Queanbeyan NSW 2620 Ithorburn@viria.com.au 02 6297 2437

Eucalyptus

Warwick Varley (Leader) PO Box 456, Wollongong NSW 2520 warwick@alliedtrees.com.au 0402 763 414 Steve Harries (Admin) 50 Nardoo Rd Peats Ridge NSW 2250 abodepool@bigpond.com 02 4373 1088

Fern

Peter Bostock (Leader) 54/260 Cliveden Ave Corinda Qld 4075 pbostock@ozemail.com.au 0421 113 955 Dan Johnston (Treasurer, Membership) 9 Ryhope St, Buderim Qld 4556 dan.b.johnston@bigpond.com 07 5445 6069 / 0429 065 894

Garden Design

Lawrie Smith (Leader) 38 Sandpiper Ave, North Lakes Qld 4509 lawries@live.com 0411 228 900

Goodeniaceae

Royce Raleigh (Leader) 2866 Northern Grampians Rd Wartook Vic 3401 royce@wartookgardens.com.au 03 5383 6200 Maree Goods (Newsletter Editor) goodeniaceaestudygroup@gmail.com

Grevillea

Peter Olde (Leader) 140 Russell Lane, Oakdale NSW 2570 peter:olde@exemail.com.au Christine Guthrie (Treasurer and Editor) 32 Blanche St, Oatley NSW 2223 bruce.moffatt@tpg.com.au 02 9579 4093 email only, no fee

Hakea

Paul Kennedy (Leader) 210 Aireys St, Elliminyit Vic 3249 hakeaholic@gmail.com 03 5231 5569

Isopogon and Petrophile

Phil Trickett and Catriona Bate (Leaders) PO Box 29 I, Ulladulla NSW 2539 catrionaandphil@gmail.com 0409 789 567 email only, no fee

Wallum and Coastal Heathland

Barbara Henderson(Leader) 36 Railway Terrace, Moore Qld 4306 07 5424 7073

Waratah and Flannel Flower

Maria Hitchcock (Leader) 16 Hitchcock Lane, Armidale NSW 2350 maria.hitchcock@gmail.com 02 6775 1139 email only, no fee

Inactive Study Groups

Over the years, several study groups have gone into recess and require new leaders. The Goodeniaceae Study Group has recently become active after several years of being inactive, so revival of study groups is possible.

Forming a new study group

There are many genera of Australian plants not under study at the present time. If you are interested in forming a new study group, contact Phil Royce. If you're interested in taking on the interesting role of leader of one of the following inactive study groups contact Phil Royce, Study Group Liaison Officer.

Australian Daisy Australian Plants for Containers Boronia and Allied Genera Calytrix Fabaceae Hibbertia Hibiscus and Related Genera Indigenous Orchid Lisianthos Melaleuca and Allied Genera Native Succulents Palm and Cycad Prostanthera and Westringia Ptilotus Rainforest Ramnaceae Verticordia Wetlands Wildlife and Native Plants



Australian Native Flower Photographs in Ultraviolet Light



David Oldfield

EXHIBITION OPENING: 2 - 4 pm SATURDAY 1 JUNE 2019

NEWSTEAD RAILWAY ARTS HUB 8A TIVEY STREET, NEWSTEAD, VIC, 3462 EXHIBITION DATES: 1 – 23 JUNE 2019 OPENING DAYS/HOURS: 10 AM – 4 PM, SAT, SUN. (GA)

District Groups directory

APS Albury-Wodonga Inc

President: Tom Bird Secretary: Christine Young ausplants.aw@gmail.com 11 Topaz Crt, West Wodonga Vic. 3690 apsvic.org.au/aps-albury-wodonga/ **Meetings**: Age Concern, Townsend St, Albury. 4th Tuesday at 7.30 pm (Feb–Nov).

APS Ballarat District Inc

President: Phyllis Wright Secretary: vacant aps_ballarat@yahoo.com.au PO Box 123W, Ballarat West Vic. 3350 **Meetings**: Robert Clark Horticultural Centre, Ballarat Botanic Gardens, Ballarat. Access from Gate 3, Gillies St. 2nd Wednesday: Oct, Nov, Dec, Feb, Mar at 7.30pm; Apr–Sep at 2 pm.

APS Bendigo Inc

President: Tony Brown 0418 135 213
Secretary: Sandra Birch 0400 149 319 bendigo@apsvic.org.au
PO Box 669, Bendigo Vic. 3552
Meetings: Golden Square Hall, Old High St, Golden Square. 3rd Tuesday at 7.30 pm (Feb–Nov).

APS Colac-Otway Inc

President: Geoff Beilby 0427 358 252 Secretary: Paul Kennedy (03) 5231 5569 apscolacotwaygroup@gmail.com 210 Aireys St, Elliminyt Vic. 3249 **Meetings**: Colac Neighbourhood House, 23 Miller St, Colac. 3rd Wednesday at 8 pm (Feb–Nov).

ANPS East Gippsland Inc

President: Cliff Ireland Secretary: Cath McInnes (03) 5147 1897 eastgippsland@apsvic.org.au PO Box 1036, Bairnsdale Vic. 3875 **Meetings**: Noweyung, 84 Goold St, Bairnsdale. In future meetings will be on the second Tuesday at 7.30 pm (except Dec and Jan).

Echuca-Moama District APS Inc

President: Sue Robertson 0421 377 429 Secretary: Drew Gailey 0429 832 310 2 Airlie Crt, Echuca Vic. 3564 echucamoama@apsvic.org.au **Meetings**: Echuca Library, 310 Hare St, Echuca. 4th Thursday at 7.30 pm

APS Foothills Inc

Leader: Janet Hodgkiss Secretary: Nicky Zanen (03) 9761 1933 foothills@apsvic.org.au PO Box 65, Boronia Vic. 3155 **Meetings**: Evening – Knox Park Primary School, Kathryn Rd, Knoxfield. 4th Wednesday at 7.45 pm (except school holidays). Day – Field Naturalist Hall, Gardenia St, Blackburn. 2nd Tuesday at 10.30 am (Feb–Oct).

APS Geelong Inc

President: Bruce McGinness (03) 5278 8827 Secretary: Phil Royce apsgeeelong@gmail.com PO Box 2012, Geelong Vic. 3220 www.apsgeelong.org **Meetings**: The Ballroom – Hamlyn Park, 1 Carey St, Hamlyn Heights. 3rd Tuesday at 7.30 pm (Mar–Nov).

APS Grampians Group Inc

President: vacant Vice President: John King Secretary: Andrea Shelley grampians@apsvic.org.au c/o Pomonal Post Office, Pomonal Vic. 3381 **Meetings**: Pomonal Hall, Pomonal. 3rd Tuesday at 7.30 pm (Feb–Dec).

SGAP Hamilton Inc

President: Ainsley Wilson Secretary: Liz Cummins 0438 741 223 hamiltonsgap@hotmail.com **Meetings**: HIRL, North Boundary Rd, Hamilton. 2nd Wednesday at 7.30 pm (Feb, Apr, Jun, Aug, Oct, Dec).

APS Keilor Plains Inc

Leader: Jane Canaway 0425 701 756 Secretary: Anne Langmaid (03) 9336 3228 info@apskeilorplains.org.au PO Box 115, Niddrie Vic. 3042 www.apskeilorplains.org.au **Meetings**: 54 Raleigh Rd, Maribyrnong. 1st Friday at 8 pm (Feb–Dec).

APS Latrobe Valley Group Inc

Leader: Mike Beamish, 0351 696 543 Secretary: Judy Hetherington latrobevalley.aps@gmail.com PO Box 112, Boolarra Vic. 3870 **Meetings**: Horticultural Building, Federation Training, Morwell. 2nd Thursday at 7.30 pm (except Jan).

APS Loddon–Murray Group Inc

President: Andrew Farley (03) 5457 2394 Secretary: Linda Coote 0447 134 913 coringapark@gmail.com 56 Dawe Rd, Murrabit Vic. 3579 **Meetings**: Kerang Lions Club Den, Park Rd, Kerang. 4th Wednesday at 7.30 pm (bimonthly). Alternate 4th weekend – weekend outing/field trip.

APS Maroondah Inc

President: Bruce Schroder (03) 9728 1342 Secretary: Peter Rogers (03) 9801 6946 maroondah@apsvic.org.au PO Box 33, Ringwood Vic. 3134 australianplantssoc.wix.com/maroondah **Meetings**: Australian Unity Hall, 8 Main St, Blackburn. 3rd Friday at 8 pm (Jan–Nov).

APS Melton & Bacchus Marsh Inc

President: Christine Huf 0412 081 074 Secretary: David Pye (03) 5428 9369 apsmeltonbacchus@gmail.com PO Box 946, Bacchus Marsh Vic. 3340 www.runningpostman.org.au **Meetings**: Botanica Springs Children's & Community Centre, 249 Clarkes Rd, Brookfield. 4th Thursday at 7.30 pm (Feb–Jun & Aug–Nov).

APS Mildura Inc

President: Tony Langdon 0428 214 117 Secretary: Peter Lang (03) 5023 2551 PO Box 259 MCP, Mildura Vic. 3501 apsmildura@hotmail.com **Meetings**: Lutheran Church Hall, cnr 9th St and Olive Ave, Mildura. 2nd Thursday, 7.30 pm (Feb–Nov).

APS Mitchell Group Inc

President: Norbert Ryan Secretary: Ian Julian (03) 5793 8270 mitchell@apsvic.org.au PO Box 541, Kilmore Vic. 3764 www.apsmitchell.org.au **Meetings**: John Taylor Room, Kilmore Library. 3rd Monday at 7.30 pm (Feb–Nov).

APS Mornington Peninsula Inc

President: Verena Reich 0402 842 494 Secretary: Jenny Bolger 0428 284 974 morningtonpeninsula@apsvic.org.au

162 Balnarring Rd, Merricks North Vic. 3926 **Meetings**: alternating between the 3rd Tuesday at Bentons Square Community Centre, 145 Bentons Rd, Mornington (times alternate between 7:30 pm and 2:30 pm) and outings on the 3rd Saturday starting at 10:30 am. (Feb–Nov). Contact secretary for time and date details.

SGAP Shepparton & Districts Inc

Leader: David Doyle (03) 5829 8416 dwdoyle1@optusnet.com.au 5 Boschetti Rd, Tallygaroopna Vic 3634 Secretary: Jenny Polinelli (03) 5825 4210 jcpolin@tpg.com.au 15 Ros St, Mooroopna Vic 3629 **Meetings**: Shepparton Vision Centre, Channel Rd, Shepparton. 2nd Tuesday at 8 pm (Feb, Mar, Apr, May, Aug, Oct, Nov). **Excursions:** Jun, Jul, Sep, Dec.

APS South East Melbourne Region Inc Leader: John Thompson (03) 9598 6982
Secretary: Helen Appleby 0419 310 849
SEMELB@apsvic.org.au
PO Box 8835, Armadale Vic. 3143
Meetings: Hughesdale Community Centre, cnr Poath & Kangaroo Rds, Hughesdale.
1st Tuesday at 8 pm (Feb–Dec except Cup Day).

APS South Gippsland Group Inc

President: Jim Lyons (03) 5674 2864 Secretary: Geoff Trease sgaps@hotmail.com 170 Kardella Fairbank Rd, Kardella Vic. 3951 **Meetings**: Uniting Church Hall, 16 Peart St, Leongatha. 2nd Wednesday at 7.30 pm (most months).

APS Strathbogie Ranges Inc

Leader: Val Kneebone (03) 5798 5453 Secretary: Pete Kelly 0402 882 959 aps.strathbogie.ranges@gmail.com 10 Tuan Lane, Longwood Vic. 3665 **Meetings**: (contact leader for details). 4th Saturday at 10.30 am (Feb–Nov).

APS Wangaratta Inc

President: John van Riet (03) 5725 7207 Secretary: Alison Earp (03) 5729 7518 apswangaratta1@gmail.com 21 Frascas Lane, Myrrhee Vic. 3732 **Meetings**: Park Lane Nursery, Park Lane, Wangaratta. 4th Thursday at 7.30 pm (Feb–Nov) unless otherwise advised.

APS Warrnambool & District Inc

President: Dorothy Mattner (03) 5567 6477 Secretary: Mike Halls (03) 5562 6519 warrnambool@apsvic.org.au 127 Rooneys Rd, Warrnambool Vic. 3280 www.apswarrnambool.org.au **Meetings**: Mozart Hall, Gilles St, Warrnambool. 4th Friday at 8 pm (Feb–Nov).

APS Waverley Inc

Leader: Jenny Kelso (03) 9889 1195 Secretary: Virginia Barnett (03) 9803 4502 apswaverley@gmail.com

PO Box 248, Glen Waverley Vic. 3150 www.apswaverley.host56.com

Meetings: Wadham House, 52 Wadham Pde, Mt Waverley. 3rd Thursday at 8 pm (Feb–Nov).

APS Wilson Park (Berwick) Inc

President: Alex Smart (03) 9707 5275
Secretary: Wendy Smart (03) 9707 5275
secretary@apswilsonparkberwick.org.au
PO Box 278, Berwick Vic. 3806
www.apswilsonparkberwick.org.au
Meetings: Wilson Botanic Park, Admin. Building,
Princes Hwy, Berwick. 2nd Tuesday (Feb–Dec).

Wimmera Growers of Australian Plants Inc

President: Royce Raleigh (03) 5383 6200 Secretary: Anthea Garth (03) 5382 4383 wgapinc@gmail.com PO Box 533, Horsham Vic. 3402 wimmeragap.weebly.com **Meetings**: Wimmera Lodge, 8 Dumesny St. Horsham (September at Town Hall.

St, Horsham (September at Town Hall, Warracknabeal). 1st Thursday at 7.30 pm (Feb–Nov).

APS Wyndham District Inc

President: Colleen Miller 0401 645 468 Secretary: Suelin Haynes 0425 797 408 apswyndham@gmail.com

PO Box 883, Werribee Vic. 3030 **Meetings**: Old Shire Offices, cnr Watton St and Duncans Rd, Werribee. 2nd Wednesday at 7:30 pm of every even numbered month. Outings are held on odd numbered months.

APS Yarra Yarra Group Inc

Leader: Miriam Ford 0409 600 644 Secretary: Joanne Cairns ((03) 9432 0409 apsyarrayarra@gmail.com PO Box 298, Eltham Vic. 3095 apsyarrayarra.org.au

Facebook: www.facebook.com/APSYarraYarra/ **Meetings**: Orana Building, Araluen Centre. 226 Old Eltham Rd, Lower Plenty. 1st Thursday at 8 pm (Feb–Dec).

Please send changes to: APS Vic Secretary secretary@apsvic.org.au

AUSTRALIAN PLANTS SOCIETY VIC. INC. 'GROWING AUSTRALIAN' ADVERTISING FEES

	Vic. Member per annum	Vic. Member per issue	Non-Member per annum	Non-Member per issue
4.5cm.x1 col. (1/4 col,1/8 p)	\$70	\$21	\$105	\$29
6cm. x col. (/3 col, /6 p)	\$91	\$25	\$137	\$39
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6cm. x 2 col. (1/3 p)	\$181	\$53	\$275	\$71
1/2 page (horiz, or vert.)	\$272	\$80	\$408	\$107
Full page	\$543	\$160	\$815	\$214

Advertising: Fees are charged to non-members for all advertising, at the prescribed rates. Fees are charged to members for advertising products, services or assets, at the prescribed rates. No fees are charged to District Groups or individual members for advertising activities. Enquiries should be directed to Newsletter Production.

We also offer inserts at \$200.00 per issue for handling. You provide the inserts.

For all advertising enquiries, contact Graeme Nicholls at 27 Masons Rd, Blackburn 3130 phone (03) 9893 4422 or email: newsletterproduction@apsvic.org.au.

Webspot

When you hear the word 'herbarium' what comes to mind? A building containing a collection of old pressed plant specimens? The internet has opened up herbariums to the world and plenty are now accessible worldwide. In them you'll find historic collections, examples of extinct or near extinct species and much more. And they are no longer the domain of government agencies or universities. Amateurs can now compile herbarium collections based on photographic documentation for general or specific regions.

This could be a project for district groups to take up.

Hornsby Herbarium

www.photosau.com/ hornsbyherbarium/

The Hornsby Herbarium has been compiled over 25 years by members of APS North Shore Group in NSW.

The Collection consists of dried, pressed specimens held in large folders in Hornsby Central Library, and a Virtual herbarium accessible via the internet. The Virtual herbarium has about 950 native plants found in Hornsby Shire, and about 300 introduced plants. The collection area includes private land, Council land, Crown land and national parks.

National Herbarium of Victoria

www.rbg.vic.gov.au/science/ herbarium-and-resources/nationalherbarium-of-victoria

A herbarium on a much larger scale is the National Herbarium of Victoria.

The State Botanical Collection at Royal Botanic Gardens Victoria comprises a collection of approximately 1.5 million dried plant, algae and fungi specimens from all around the world. The majority of the collection is Australian, with a particular emphasis on the flora of Victoria. The collection is rich in historical specimens and foreign-collected specimens: about



Where possible, plants are scanned rather than photographed. This allows the viewer to zoom in much closer to see fine details that may help with accurate identification. A great achievement.



half of the specimens were collected before 1900, and one-third collected overseas.

The majority of Royal Botanic Gardens Victoria's Australian collection can be viewed via the Australia's Virtual Herbarium (avh.chah.org.au)

Committee of Management

Executive

President: Chris Long (03) 9766 6470/0425 755 610 president@apsvic.org.au

Vice President: Greg Brown 0421 331 954 vicepresident@apsvic.org.au

Vice President: vacant

Secretary/Public Officer: vacant secretary@apsvic.org.au

Treasurer: Bev Fox (03) 9762 5086, treasurer@apsvic.org.au

Elected Ordinary Member

Conservation Officer: Neil Marriott (03) 5356 2404, conservation@apsvic.org.au

Lone Member Officer: Linda Huzzey (03) 5726 1875, lonemember@apsvic.org.au

Membership Officer: Anne Langmaid (03) 9336 3228, PO Box 329 Keilor Vic 3036, membership@apsvic.org.au

Newsletter Editor: Lachlan Garland (03) 9598 4963, newsletter@apsvic.org.au

Publicity Officer: vacant

Research Officer: Barbara Buchanan (03) 5762 3625, research@apsvic.org.au

Study Group Liaison Officer: Phil Royce studygroup@apsvic.org.au

Appointed Positions

(no voting rights)

Book Sales Officer: Bill Aitchison/Sue Guymer (03) 9872 3583, books@apsvic.org.au

Historian: John Walter (03) 5423 9383

Mail Collector: Annie Treasure

Newsletter Post-out Officers: Bernard and Dallas Boulton

Newsletter Production Officer: Graeme Nicholls, 27 Masons Rd, Blackburn Vic 3130, (03) 9893 4422, newsletterproduction@apsvic.org.au

Seed Bank Curator: Amy Akers, 28 Gretana Cres, Frankston Vic 3199, seedbank@apsvic.org.au

Web Administrator: John King webadmin@apsvic.org.au

Sub-committees

Growth and Development Sub-committee Ross Field (chair), Greg Brown, Richard Cameron, Jill Lulham, Chris Long (ex officio)

Awards Sub-committee

Brendon Stahl (chair), Tony Cavanagh, Marj Seaton, Chris Long (ex officio)

District Group Delegates

APS Albury-Wodonga Inc

APS (SGAP) Ballarat District Inc: John Hastie (03) 5341 5567

APS Bendigo Inc: Sandra Birch 0400 149 319

APS Colac-Otway Inc: Paul Kennedy 03) 5231 5569

ANPS East Gippsland Inc: Cliff Ireland

Echuca-Moama District APS Inc

APS Foothills Inc: Nicky Zanen (03) 9761 1933

APS Geelong Inc: Bruce McGinness (03) 5278 8827

APS Grampians Group Inc: Wendy Marriott (03) 5356 2404

SGAP Hamilton Inc

APS Keilor Plains Inc: Elaine Whalley 0401 802 198

APS Latrobe Valley Group Inc

APS Loddon-Murray Group Inc: Barry Teague (03) 5033 1020

APS Maroondah Inc: Dallas Boulton (03) 9729 1538

APS Melton & Bacchus Marsh Inc: David Pye

(03) 5428 9369

APS Mildura Inc

APS Mitchell Group Inc: Ian Julian (03) 5793 8270

APS Mornington Peninsula Group Inc: Chris Long (03) 9766 6470

APS SE Melbourne Region Inc: Marj Seaton (03) 9570 6293

SGAP Shepparton & District Inc: Carolyn Edwards (03) 5821 4826

APS South Gippsland Group Inc

APS Strathbogie Ranges Inc: Jill Fidler 0407 871 603

APS Wangaratta Inc: Helen van Riet (03) 5725 7207

APS Warrnambool & District Inc: Bob Artis

APS Waverley Inc: Jenny Kelso (03) 9889 1195

APS Wilson Park (Berwick) Inc: Joy Buck (03) 5998 7608

APS Wyndham District Inc: Dianne Winters (03) 9395 7369

APS Yarra Yarra Group Inc: Miriam Ford (03) 9178 2702

Wimmera Growers of Australian Plants Inc

and furthermore ...

To many APS Vic members the Committee of Management meetings might be unfamiliar territory.

At the March meeting in Ringwood, COM representatives gathered for this photo. It's not only an historical record of the day, but also shows the team working to make APS Vic tick, and continue to fulfil its purposes at the Committee of Management level.

With the upcoming AGM you can put yourself in this picture by volunteering for a position within APS Vic, or by taking on the role of your district group's delegate. You also make some great new friends.



The happy band of Committee of Management delegates at Ringwood.



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