

Australian Native Plants Society (Australia) (ANPSA)

Eremophila Study Group Newsletter No. 131

June 2021



E. subfloccosa ssp. *lanata*, a touchy but spectacular form of *E. subfloccosa* (pic by the late Brian Freeman)

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Letter from the Editor

Well, the last few months have been very busy for many people!

Study Group members have been very active, with three sub-groups meeting in March and May. Members very kindly responded to not one but TWO surveys from me. The *E. subfloccosa* survey is reported on in this issue of the newsletter (starting page 4), and the fertiliser survey will be included in the next one.

I have emailed those whose memberships expire on 30 June 2021 to invite renewals. If you haven't heard from me, don't worry! – it means you are still financial after 30 June. For those who have not yet paid and do owe money, this will be your last newsletter, so please renew to keep the Eremophila news flowing.

Exciting news on the broader front is that two new books are in the works – the first, by Andrew Brown and Bevan Buirchell, is a 2nd edition of their popular *A Field Guide to the Eremophila of Western Australia* – see page 12 for ordering details. It is available immediately and Study Group members are offered a special price. The second, by Russell Wait, focusses on horticulture and still in final stages of preparation. It is expected to be available soon. If you want to get onto Russell's mail list so you get copies as soon as it is printed, see page 11.

I was invited to the SA group meeting at Kadina in March and gave my thoughts on where the Study Group is going next. Things have moved along since then, and on page 25 you can find an inserted "Call for Proposals" that is about to be sent to university research offices as the first step in a possible combined application to the Australian Research Council for work over one to three years on seed germination (sorry this has made the NL longer than usual!). Academics, ask your research office about this opportunity.



Lyndal Thorburn
Leader and Editor



Eremophilas in the News

The SA Life magazine Gardens and Outdoor Living of Autumn 2021 published an article about the launch of *E. waitii* into retail nurseries through Native Plant Wholesalers. The article also featured photos of the cultivars *E. 'Beryl's Gem'* and *E. 'Meringur Ray'*, and listed several others.

Farewell Brian Freeman

We are very sad to report the sudden death of Study Group member Brian Freeman just after Easter, from a suspected heart attack. Many members will have followed changes in Brian's magnificent garden 'Ninbella' on the Fleurieu Peninsula, where he had lived for 20 years, on Facebook, to which he was a prolific contributor.

Brian had been recognised for his contribution to the SA Region by being awarded Life Membership in 2018. He was a former President of the Fleurieu Group and the Grevillea Study Group. He worked closely with Native Plant Wholesalers and contributed commercial quantities of cutting to help hybrids, including Pink Pantha, reach commercial release. The photo below shows Brian with SA Region president Margaret Lee and Gill Muller, co-moderator (with Brian) of the Facebook *Australian Native Plant Enthusiasts Forum*. A longer obituary has been published in the SA Regional Journal of May 2021.



New members

Welcome to new members Matthew and Lorelei Bartkowski (Qld), Anne Green (SA) and Gerard Satherley (NSW).

What's New in the Study Group?

Lyndal Thorburn

I went to the sub-group meeting at Kadina at the end of March 2021.

Organiser Tim Wood asked me to speak for ten minutes on where the Study Group is going, so that prompted me to organise my thoughts, which I have put down here.

Firstly, thanks to all of you who have been involved in initiatives and activities since I took over the Study Group as its leader in 2015. These include:

- our two national meetings in 2017 and 2020 (the latter curtailed due to COVID19);
- surveys, which members enthusiastically answer to help develop the text for the Feature Species in every newsletter;
- expanded cultivar registration;
- photographs for the new Image Database on www.anpsa.org.au and more recently for the Eremophila flower banner; and
- your general contributions to newsletters.

Due to the enthusiasm of members, we now have four sub-groups – those in NSW and Queensland pre-dated my leadership; two in Victoria and South Australia are more recent (see page 15 if you want to join one of these sub-groups but are not yet on the mail lists).

So, what's next?

Members will be aware that Native Plant Wholesalers is donating a small amount to the Study Group for each label they print of new (and established) cultivars and species they release to national nurseries (see page 13 for the most recent news on these). I am keen for this income to be used for research into the Eremophila genus.

Since the Kadina meeting, I have been assisted by Prof. Hans Griesser on how to frame an application to the Australian Research Council and I am in the middle of approaching potential partners including botanic gardens, ANPS regional organisations and the Australian Flora Foundation about co-funding. In developing these ideas, I surveyed members about the suggestions from the Kadina meeting and there

was general support for what had been suggested there.

In the hunt for extra money, I am thinking about if (how) we can run a raffle, or raise money through other means (e.g., printing gift cards with Eremophila on them). Many thanks, by the way, for those members who have paid more than their annual subscription fee as an extra donation – these payments will go towards our research fund.

The second big task I see for us is raising awareness of Eremophila amongst the general gardening community nationally, given that our main role as a Study Group is to promote horticulture of the genus. The Image Database was the first step in this, along with the material I have been sending the Gardening with Angus website.

Members can help promote Eremophilas in their communities and I'd love to hear about how people have done this. For example, members can be active in their local gardening Facebook groups (e.g., see NL 130 of March 2021 about how Dave Bishop is doing this in Yass) or broader groups such as the *Australian Native Plants Enthusiasts' Forum*. I have also discovered that the ACT government has a webpage which recommends plants for Canberra, and I have just organised for them to list both *E. glabra* and *E. maculata* on there (baby steps first!). Is there one in your region?

In March, I presented to ACT TAFE landscaping students about Eremophila – they had never heard of them! I realised there was opportunity for ANPSA to spread information more broadly through TAFEs but, clearly, we can't spend all our time visiting TAFEs around the country.

ANPSA is agreeable to the idea of study group leaders recording presentations, which we then make available online via either YouTube or the www.anpsa.org.au site. My task now, once I record my own Eremophila presentation, is to approach study group leaders about compiling a series.

If you have other suggestions or comments on this, please email before the next Newsletter!

Feature species – *Eremophila subfloccosa*

Lyndal Thorburn, with input from Russell Wait and Ken Warnes, and 24 respondents to the survey of May 2021

Eremophila subfloccosa is a West Australian and South Australian *Eremophila* that grows mainly as a ground cover (i.e., wider than it is high, but not fully prostrate), reaching up to 1m tall (depending on subspecies) and up to 2m in diameter.

Leaves are aromatic and are irregularly toothed towards the apex. Its scientific and common names (Felted or Dense-felted *Eremophila*) acknowledge the hairy leaves, which give the plant a felty feel.

Chinnock notes that *E. subfloccosa* is closely related to *E. glabra* and is distinguished by its yellow or green flowers, aromatic leaves with long white branched hairs, and imbricate habit (meaning that the leaves overlap each other on the plant). There have been reports of variations with red or pink flowers but the firm description of green flowers by Chinnock implies that these latter would be classed as *E. glabra* ssp. *murrayana*. It is also quite close to what is now called *E. viridissima*.

There are three sub-species – *E. subfloccosa* ssp. *subfloccosa*, *E. subfloccosa* ssp. *glandulosa*, and *E. subfloccosa* ssp. *lanata*. All three are bird pollinated. They grow opportunistically and will be more likely to be found in disturbed areas, including those disturbed by fire.

E. subfloccosa* ssp. *subfloccosa

E. subfloccosa ssp. *subfloccosa* (the type species) is found in a small area of West Australia, in the Avon and the north-western Roe (Mallee) Botanical districts (Brown and Buirchell describe the range as between Hyden and Wongan Hills). It grows in Eucalypt and Melaleuca woodlands on sandy or clay loams.

This subspecies is distinguished by a mix of glandular and long branched hairs on the leaves and sepals, and leaf margins which are densely haired, making them look white. The branches are either prostrate or decumbent, which means

they lie on the ground, but their tips turn up, giving the plant an upright appearance. The plant itself is low and spreading, reaching 0.4-0.8m high and up to 2m wide (pic below by Ken Warnes).



The picture below of the yellowish green flower was taken by Russell Wait.



Ken reports that nectar production can be prolific and the honey which can be sucked from the base of the corolla is tasty enough to go straight on your breakfast toast!

E. subfloccosa* ssp. *glandulosa

This sub-species is also found in the Roe Botanical District in WA, but further east than the type specimen, and also further north in the Coolgardie District (Brown and Buirchell describe the range as lying between Balladonia

and Ravensthorpe and note that it is often found growing with *E. decipiens*, *E. ionantha* and *E. dichroantha*). A separate population is found in South Australia, in the Adelaide Plains, Flinders Ranges and the Yorke Peninsula. It re-emerged in uncultivated areas near Owen and Pinery, after the 2015 Pinery Fires (see Newsletter 114, June 2016). It usually grows in amongst Eucalypt woodland on clay loams.¹

Like *E. subfloccosa ssp subfloccosa*, *E. subfloccosa ssp. glandulosa* also has leaves with a mix of glandular and long branched hairs, but the leaf margins lack the dense hairs of the type subspecies (making the leaves overall look greener), the hairs are mainly glandular (hence the name), and the branches are more erect (pic Ken Warnes). It can be quite viscid (sticky), especially when young, and it is the only subspecies which is clearly aromatic.



The shrub is 0.3-1m high and >1m wide. The photo below is by Ken Warnes and was taken along the Pinery roadside after the fires.



¹ In Newsletter 119 (February 2018), Jocelyn Lindner also reported finding this sub-species in Victoria, near Murrayville – a location not previously recorded (but note references to *E. glabra* earlier). At the time she speculated that a controlled burn some seven years previously may have encouraged dormant

The flower is yellow green with white stamens and the flower as a whole is larger than that of the type subspecies (pic Russell Wait).



E. subfloccosa ssp. lanata

The third sub-species, *E. subfloccosa ssp. lanata*, has very hairy leaves and sepals which look white or grey because of the density of the hairs (= woolly, hence “lanata”). It was formerly classified under *E. glabra ssp. viridiflora* and was first described as a sub-species in Chinnock (2007).

This subspecies is also found in both WA and SA. In WA it is found in Eucalyptus and mulga woodlands on red or yellow sand plains in the Avon, Austin, Helm and Roe Botanical Districts – described by Brown and Buirchell as between Rawlinna and Cue. In SA it is widespread on the Eyre Peninsula, from where the specimens that described the subspecies were collected. Ken has seen it as far south as Arno Bay and in a sand patch in the central Gawler Ranges. However, it is transient – he says large populations in one year appear to be totally gone the next.

The plant itself is the tallest of the three sub-species. Chinnock states that it reaches 1.2m in height by 1m wide, but garden subjects such as the one on the cover page are much smaller, maybe 0.6m.

seed. It seems likely that these too would be classed as *E. glabra ssp. murrayana*, yellow form. Ken has seen prolific regeneration of *E. glabra ssp. murrayana* in the Dangalli Conservation Park north of Renmark following fire.

This subspecies has green flowers similar in colour to *E. subfloccosa ssp. subfloccosa*, but with exerted pink or white stamens. Unlike the other two subspecies, the flowers contrast well with the leaves, because of the whiteness of the latter.

At its best, it is a striking plant with near white foliage and bright green flowers well displayed on the tips. The photo below by Brian Freeman is of a pink-stamened form, from a specific population in WA. Below that that is the more usual white-stamened form, growing in Charles Farrugia's garden in Sydney.



Below is a photo of Chris Strachan's *E. subfloccosa ssp. lanata* that is growing under *E. laanii* and does not get any sun until late afternoon. It reaches out for light across the path and gets cut back regularly but always shoots new growth quickly. Chris has another that grows well in the middle of the garden underneath several bushy plants and only gets a little dappled sun at times. Both grow in very dry, sandy loam that does not hold moisture even in winter.



New form

Russell has reported that there is potentially a new subspecies of *E. subfloccosa* which has green leaves with a hint of grey and different leaf arrangement. In the wild it is a bush of about 0.5m by 0.4m but in the garden it gets a bit larger, to 0.6m x 1m. It is short-lived, up to about 3 years, and has yellow and different hairs to the other subspecies (pic below by Russell Wait).



Horticulture

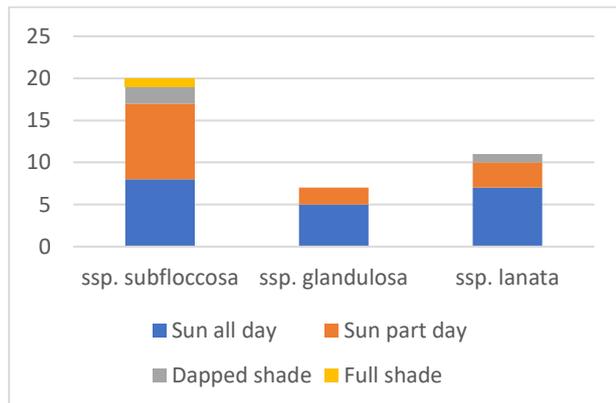
As can be seen from the previous photos, *E. subfloccosa* can grow in filtered shade, but it does well in sun. It is drought tolerant but will appreciate some extra water in very dry periods.

In the garden it provides interest due to its striking foliage and is worth growing for that alone, given the flowers are not conspicuous. It is very hardy in most gardens.

ESG members mostly grow *E. subfloccosa* ssp. *subfloccosa*, with 19 reporting growing this subspecies now and two in the past. The second most popular subspecies is *E. subfloccosa* ssp. *lanata*, grown by 9 now and 6 in the past; and finally, *E. subfloccosa* ssp. *glandulosa* is grown by 7 now and one in the past. The graph below summarises these results.

Eighty-three percent of respondents grew their plants only in the ground, some mulching with leaf litter and some not. Soils ranged from sandy loam to good topsoil, lateritic gravel and lots of examples of clay of various depths. Twelve percent had specimens both in tubs and in the ground, and the remainder had specimens only in tubs.

Most respondents grew their plants in full sun; however, of those growing *E. subfloccosa* ssp. *subfloccosa*, half only received sun part of the day (see graph below).



The survey invited commentary about whether the species was suitable for growing in tubs. There were suggestions that *E. subfloccosa* ssp. *lanata* may do better in a pot as it would be easier to keep water away from leaves.

In my experience, *E. subfloccosa* ssp. *glandulosa* is unsuitable for growing in tubs,

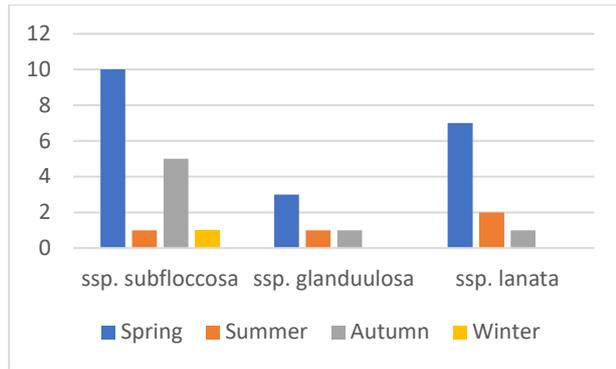
because of the decumbent habit. The photo next column shows my plant, unwisely planted in a tub. The first stem tried to grow out sideways and, when it hit the pot edge, headed towards the ground. The secondary stems then headed upwards – it now can't be transplanted out of the pot, because that would break the main stem (needs a good prune as well!).



Flowering

According to Brown and Buirchell, the three sub-species flower at different times – March to September for *E. subfloccosa* ssp. *subfloccosa*, September to November for *E. subfloccosa* ssp. *glandulosa* and June to December for *E. subfloccosa* ssp. *lanata*.

Survey respondents reported different flowering times to this: spring and autumn for *E. subfloccosa* ssp. *subfloccosa* and *E. subfloccosa* ssp. *glandulosa*, and spring and summer for *E. subfloccosa* ssp. *lanata* (see graph next page).

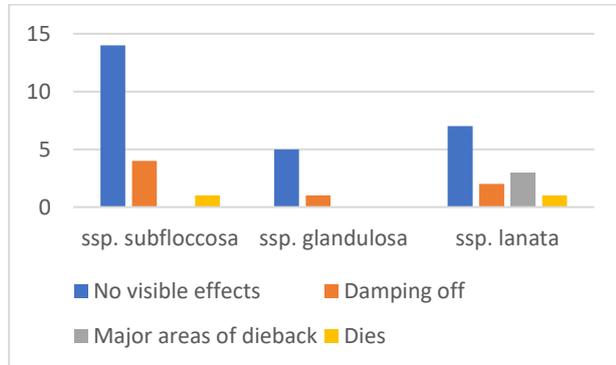


Frost, cold and humidity

All sub-species of *E. subfloccosa* are frost tolerant. However, according to Boschen, Goods and Wait, they can suffer from dieback or sooty mould in areas that have wet winters – moisture is trapped by its hairy leaves.

Survey respondents were also asked about the effect of rain.

As expected, *E. subfloccosa* ssp. *lanata* had the most negative effects from rain, with dieback reported (see graph). Damping off of lower leaves was also reported for this subspecies and *E. subfloccosa* ssp. *subfloccosa*.



Because of the negative effects of heavy rain, one respondent grows their plant under the eaves where natural watering is minimised.

Wind damage

Being a small plant, wind is not a problem. Plants may need staking in areas with constant wind.

Longevity

E. subfloccosa ssp. *subfloccosa* is long lived, with a plant up to 50 years reported by Ken. Lyndal has one that is about 30 years old,

growing in full shade. Many survey respondents nominated periods of 10-15 years for their *E. subfloccosa* ssp. *subfloccosa*, and <5 years for *E. subfloccosa* ssp. *lanata*.

Chris Strachan says her *E. subfloccosa* ssp. *lanata* is 12 years old. However, this subspecies is often short-lived in the garden, as a heavy fall of rain can make it dampen off quite quickly. Length of survival in the garden may depend on the source of the original plants. Ken is of the view that longevity is genetically determined, and propagation method won't make any difference.

Pruning

E. subfloccosa remains compact and requires little pruning, although light pruning will help it to keep its shape. Respondents noted it could be pruned at any time and particularly if some foliage has died back and mars the look of the plant.

Some survey respondents suggested pruning plants up from the ground, or putting rocks at the base of the plant, to encourage air flow (and reduce damping off).

Pests

One respondent reported their *E. subfloccosa* ssp. *glandulosa* was affected by bees, which can collect the sticky resin (propolis) from the leaves. This activity can stunt or kill the plant; however, it is thought to be a rare problem.

One survey respondent reported their *E. subfloccosa* ssp. *glandulosa* had suffered from white scale, one reported mealy bugs on *E. subfloccosa* ssp. *lanata*, and one is having trouble at the moment with cats damaging plants as they hunt for mice!

Propagation

All subspecies of *E. subfloccosa* can be struck from cuttings, which need to be kept drier than most cuttings because of their propensity for dieback. Boschen/Goods/Wait recommend striking in summer for the same reason.

Most members are growing cutting-grown plants – of the twenty-seven members who reported growing *E. subfloccosa* in the *What*

Are You Growing? Survey, 22 grew only cutting-sourced plants, three had grafted plants, and two had both grafted and cutting-sourced. Similarly, 83% of respondents to the feature species survey grew cutting-propagated plants, 12.5% had both cutting-propagated and grafted specimens and one had only grafted plants.

Ken's experience from the Pinery fire is that *E. subfloccosa ssp. glandulosa* can self-fertilise and also hybridises freely. Those regenerating in the scrub around Pinery could have cross-fertilised among previous populations, but on his property and in Charles' Garden in Sydney (pic below), seedlings have appeared where a single specimen formerly grew.



In the case of *E. subfloccosa ssp. lanata*, a hotbed/mist house is not recommended. Chris Strachan (Vic) recommends not allowing water to touch the leaves of cuttings – but even so, only gets a strike rate of one in 20 for this particular subspecies. Others reported up to 100% strike rate for the other sub-species.

While few survey respondents had grafted plants, those that did used *M. montanum*, *M. insulare* and *M. acuminatum*.

Hybrids

Few survey respondents had grown any hybrids of *E. subfloccosa*. However, several are known.

Eremophila calorhabdos x subfloccosa

Newsletter 118 (November 2017) reported that Russell had collected a cross between *E. calorhabdos* and *E. subfloccosa ssp lanata* west of Balladonia in WA. He no longer has it growing (it lasted about three years) and when he was back in the area a year later all the plants had disappeared. It was not a particularly a good garden subject as the flowers were pale pink and not showy in the greyish foliage.

There is also speculation that what is termed the “grey” form of *E. calorhabdos* is actually an *E. calorhabdos x E. subfloccosa* hybrid. It is very tomentose and is much more branched than normal green *E. calorhabdos*. This particular form was collected in 1995, when not as much was known about hybridisation, and was simply termed the grey form of *E. calorhabdos*. Genetic studies would be required to determine origins.

Eremophila glabra x subfloccosa

A suspected *E. glabra x E. subfloccosa ssp. glandulosa* from Pinery has been propagated and looks like *E. glabra* with a green flower (pic below from Ken Warnes). Four members reported growing this hybrid (one of them Lyndal, who now thinks she is wrong!).



Eremophila subfloccosa ssp. glandulosa x Eremophila subfloccosa ssp. lanata

The picture over page is from Ken's swarm of hybrids which emerged after the Pinery fires and is believed to be a hybrid of these two subspecies.



One of the seedlings in the box shown in the next column is now believed to be an *E. subfloccosa* ssp. *glandulosa* x *E. glandulosa* ssp. *lanata*, pictured below and now five years old.



Yet another potential hybrid (below) has been grown from a seedling in Ken's scrub post fire, close to *E. subfloccosa* ssp. *lanata*.



The variety amongst these potential hybrids shows the potential for horticulture.

Others

Further hybrids may emerge. The image below is of a box of seedlings of *E. subfloccosa* ssp. *glandulosa*, showing significant variation, after the Pinery fire (ESG NL 117 from May 2017).



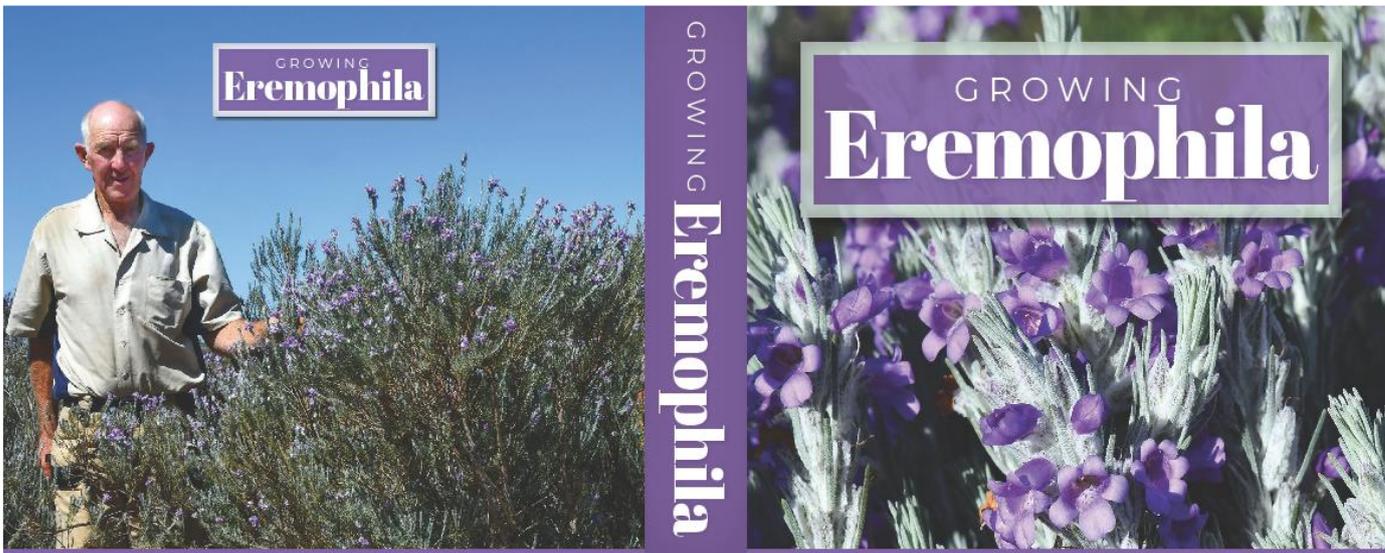
Amongst these was a variegated seedling (below). This was saved from near where the sole remaining *E. subfloccosa* specimen in the district was killed by the fire and where 14 seedlings showed in a single clod of soil. However, this specimen has not been very vigorous and the yellow in the leaf is now barely discernible.



In conclusion, *E. subfloccosa* is a good bird attractor and groundcover. Survey respondents praised its varied foliage noted it is a useful plant to provide variety in the garden and is an excellent bird-attractor. *E. subfloccosa* ssp. *lanata* is the most difficult to maintain and does best with plenty of space and air movement around it, and possibly pruning of lower leaves to delay damping off when it rains. If you want plants that stay alive, *E. subfloccosa* ssp. *subfloccosa* is a better bet.

New Growing Eremophilas Book

Study Group member Russell Wait has been working on a new book about growing Eremophila for a number of years. We expect publication later in 2021.



GROWING Eremophila

Russell Wait

Christine Huf · Cathy Powers · Jenny West

Eremophila is a genus of Australian plants with more than 300 species, subspecies and hybrids. Many are stunningly beautiful but have not been readily available to gardeners until recently. This book is a comprehensive guide to the current *Eremophila* in cultivation and includes one related genus.

The author, Russell Wait, has travelled extensively throughout Australia observing *Eremophila* in their natural habitat. He has applied this knowledge to the cultivation of *Eremophila* in gardens of southern Australia and grows almost all species in his own extensive garden at *Eremophila Park* in Victoria, Australia.

For each described species, subspecies, hybrid and undescribed species included in this publication, a brief description, a map of the natural occurrence as well as experiences with cultivation and propagation are noted. Photos are provided to highlight features of these *Eremophila* as garden specimens.

The book also includes a brief overview of some scientific studies of *Eremophila* DNA analysis and the potential use of *Eremophila* chemicals in medicine.

A quick reference guide, in table format, is provided at the back of the book.

Russell Wait

Eremophila abietina subsp. *abietina*

Pine Poverty Bush



Derivation *abietina* (Latin) leaves; refers to the resemblance of plants in the *Abies* genus. Natural habitat Stony, loamy soil in open mallee country. Description A shrub 1-2.5m high by 2m wide with resinous, green leaves 10-35mm long by 1-2mm wide, often roundish, medium sized corolla can be white to pale lilac with dark purple spots; medium sized sepals can be white to pink. Flowers in spring or after new growth. Propagation Cuttings are very difficult to strike. Cultivation Tolerates medium frosts; can handle some shade but does best in full sun with air circulation. Can suffer from dieback or fungal attack during cool, damp conditions. Can be pruned fairly hard. Author's note In large numbers, bees may be a problem by taking the resin from the bush which could kill the plant. Has beautiful dark, shiny green foliage (entire shrub resinous) and a showy flower; attractive, long-lasting sepals. Plant growth slows as it ages; bird-attracting.



For more info and to get on the mail list for early copies, email Russell at eremophilabook@gmail.com. A sample page from the book is at left, and the cover is above.

Expected length is ~500 pages.

Threatened Species Project

Last year the Study Group participated in a national community art project to draw images of threatened native species in Australia. We contributed small hand drawn pictures of 20 Eremophilas under threat, out of the more than 1800 native plants and animals that are threatened.

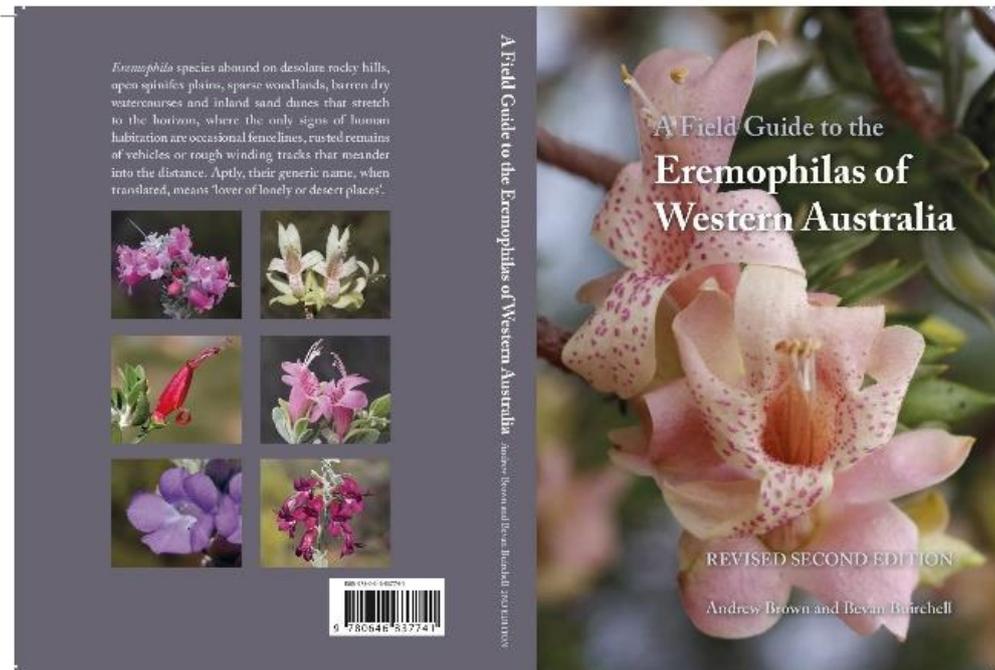
The project was derailed somewhat by COVID19, but a small community display was held in Victoria in September 2020.

Project leader, Carmel Killin, has released a beautiful video to summarise the whole project and showcases the artwork from around Australia. See it at: <https://www.youtube.com/watch?v=aU2TWNf-uZ0>

New Edition WA Field Guide

A new, updated, edition of the *Field Guide to Eremophilas of Western Australia* has been published. The book has been fully revised and updated and contains 24 new and recently described taxa and 21 new named taxa. It also contains updated text and numerous new and improved photos.

To order books, members should email Andrew Brown at [andrewbrown3 \(at\) optusnet.com.au](mailto:andrewbrown3@optusnet.com.au). Andrew will send the order form and instructions on payment. Retail price is \$45.00 + postage but Andrew has offered to make it available to Eremophila Study Group members for \$35.00 + \$10.00 postage (\$45.00 total). Thanks Andrew!!!



Eremophila ballythunnensis Buirchell & A.P.Br.



Derivation of name: Named after Ballythunna Station where it was first collected.
Flowering: June–August.
Description: A small, spreading shrub 10 to 40 cm high by 25 to 60 cm wide with narrowly-oval leaves 4 to 12 mm long by 2 to 5 mm wide, densely-hairy sepals 8 to 12 mm long by 2 to 3 mm wide and a mauve-purple corolla 14 to 20 mm long.
Distribution & habitat: Found between Ballythunna Station and the Pindar Road east of Manfred Station, growing in shallow brown sandy soil on the lower slopes of rocky hills and breakaways with *Acacia*, *Senna* and *Eremophila* species.
Notes: A little known *Eremophila* named by Bevan Buirchell and Andrew Brown in 2016 from specimens collected east of Ballythunna Homestead by Robert Davis in August 2009.



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Eremophila calorhabdos Diels Red Rod



Derivation of name: *calorhabdos* refers to the distinctive erect, wand-like branches which resemble those of the genus *Calorhabdos*.
Flowering: August–May.
Description: An erect, spindly, few branched shrub 1 to 4 m high with short, broad, pointed leaves 13 to 25 mm long by 6 to 8 mm wide, small sepals 2 to 4 mm long by 0.8 to 1 mm wide and a red, pink or rarely purple corolla 20 to 25 mm long.
Distribution & habitat: Found between Grass Patch, Balladonia and Lake King, growing in sand, clay or loam on undulating plains. The species is disturbance opportunist and is most common in areas that have been burnt.
Notes: A distinctive *Eremophila* named by Ludwig Diels in 1905 from specimens collected at Salmon Gums. It typically germinates from soil-stored seed following fire or light grading and persists for 10 to 15 years before senescing.



Join an ESG Sub-group

Do you want to meet up with local members of this Study Group but don't know where to start?

If you have joined the Study Group since (approx.) 2016, you will have been asked to tick a box if you want to be on a mail list for local sub-groups. These operate in NSW, Victoria, Queensland and (recently) SA and hold local meetings in between our larger national events.

The four sub-groups and their co-ordinators are:

- Sydney, centred on Western Sydney, run by Charles Farrugia, meets approx. quarterly but still in recess due to COVID
- Melbourne, various places, run by Neil Duncan, meets approx. 3 times per year
- Queensland, centred on Warwick, run by Jan Glazebrook, meets approx. 3 times per year.
- South Australia, centred on Kadina, run by Tim Wood, meets half yearly.

If you are a member of the Study Group and you didn't tick the box that says you want to be in a local sub-group when you joined, or if you are a pre-2016 member, then you can only find out about sub-group meetings by reading about them in the Newsletter. Sometimes a newsletter comes out before a local sub-group meeting, and sometimes after, so you might miss out.

The reason this is not automatic is because of privacy issues – I don't want to pass on members' email addresses to other members without permission.

If you do tick the sub-group box when you join, then I will copy the local coordinator (i.e., the one in your home State) when I give you other info about the Study Group after your first fees are paid. After that, the local co-ordinator will include you in emails about events/meetings they are organising.

If you have been a Study Group member and you are not on a sub-group list, but you want to be, please email me specifying which sub-group you want to join, and I will make sure you are added.

New Cultivars

The Study Group has applied for cultivar registration for several cultivars. The ACRA website is now <https://acra.biodiversity.services/info/search>

***Eremophila* 'Lemon Meringue'**

This is a yellow/white form of *E. maculata* x *E. racemosa* 'Fairy Floss'. It was found as a shoot on a "Fairy Floss" shrub growing in Canberra and, through the work of Ian Tranter, was stabilised and now grows true from cuttings.

The bud is yellow and the flower opens to a creamy colour. It is more muted in colour than the other yellow/white combination *Eremophila*, *E. racemosa* 'Peaches and Cream' (which we have also applied to have registered). 'Lemon Meringue' is currently only available from APS Canberra sales but we are working on commercial release.



***Eremophila* 'Augusta Storm'**

This is a well-known hybrid of *E. glabra* x *E. veneta* and emerged as a seedling in a pile of trash at the Australian Arid Lands Botanic Gardens. It is sold widely. We have registered it as a cultivar in an attempt to standardise the name.

Photo below is by Kevin Sparrow



Eremophila 'Smoke Haze'

This is a hybrid between *E. nivea* and *E. christophorii* and was found by Tom Loffler (dec.) in Waikerie, SA, in around 2005. Photo below by Lyndal Thorburn.



Eremophila waitii 'Silky Lavender'

Eremophila waitii (wild-collected) has also been released through Native Plant Wholesalers, which has applied a common name of Silky Lavender. It is now available as cutting-grown plants through retail nurseries nationally.



Eremophila
Silky Lavender

E. macdonnellii insights

Seedlings – from Andrew Harvie

Andrew Harvie sent a photo of an *Eremophila* seedling and was excited to report in February that it was flowering! The seedling germinated March 2020 after the February floods. That's eleven months from germination to flower, and on its own roots. It has also survived all the rain this season without any special attention. Andrew thinks that the fruit dates from the *E. macdonnellii* Simpson Desert he had there 15 years ago.



Response from Ken Warnes

It certainly looks like an *E. macdonnellii*, the cup-like calyx is a dead set give-away. It is the only species to have the calyx segments united to the base to form a cup.

For this reason, Chinnock placed it in a Section of its own, Sect. *Platycalyx* (Chinnock P. 406), which has nothing to do with the species *E. platycalyx*.

The fact that the fruit has hung around for many years just shows how long-lived the seed can be. The actual form looks interesting.

The only plants I have like that are from volunteer seedlings which I suspect come from the Simpson Desert collections with pollen from the small-leaved form from where the road to Hermannsburg crosses the Hugh River, or perhaps it's the Ellery. Whichever it is, it's quite a channel.

Down here I grow many forms of *E. macdonnellii* and they would appear to freely cross-fertilise within the species – none of my many volunteer seedlings are exact copies of the parent forms. I also have a single cross with *E. strongylophylla* but in this case the *macdonnellii* was almost certainly only the pollen provider.

The 12-month wait for flowers seems to be about right for many species. I think 7 months is about the record, but we have plenty around the 12-18 month time period, depending on time of germination and flowering time of the species.

Hanging Baskets – from Ken Warnes

New member Gerald Satherley recently circulated this (next column) photo of an *E. macdonnellii* in a hanging basket. This shows what can be done with some imagination, not to mention a fair level of TLC, I suspect.

The actual form looks very similar to what I call the southern form which occurs from the N.T. border southwards to as far as William Creek. But I believe similar forms come from East of Alice Springs towards the Qld border.



Russell plans a trip out that way but if anyone has further information, we would be pleased to receive it. And if any of you happen to be travelling the road from New Crown to Mount Dare, keep an eye out for a large area of the more southerly form with low, spreading growth and grey-green leaves. With this rain, they should be pretty special.

Who Can Use Cultivar Names?

Anne Langmaid recently sent the following email, asking a common question – “who can use the ‘official’ names of hybrid or cultivar Eremophila?” I thought the answer would be of interest to members as it is a common question.

Anne’s email

I am volunteer nursery manager at Friends of Melton Botanic Garden. We have a speciality in raising Eremophilas and dryland Eucalypts as those are both dominant within our garden. We propagate for planting in the garden as well as for sale. We get annual funding from our Council; other than that, our prime source is from nursery sales and the occasional Bunnings’ sausage sizzle. The garden and nursery are completely manned by volunteers (apart from having a Working for Victoria team for 6 months as a Vic Government Covid stimulus

project). Our plants are sold at \$3 for tubes which are seed grown and \$4 for cutting grown plants such as Eremophilas.

I think there are 5 people within the nursery who are active in the Melbourne branch of the Eremophila Study Group, so we are active supporters.

I was delighted to find out the name of an *E. glabra* x *E. maculata* is Mallee Lipstick. I had googled the name and the photo gallery you set up proved it was correct.

My difficulty is, are we able to use that name? I note that a proportion of sales of this plant go to the Eremophila Study Group. That would not be an issue, but the paperwork involved makes it too difficult and we shy away from registered names (we don't use the name Paddy's Pink for the lovely *Verticordia* x *Chamelaucium*). We are not talking about huge numbers of plants here, 20-40 a year I would guess of this plant. We try to grow a very wide range, especially of Eremophilas, so we do small batches.

Lyndal's response

Thanks for the inquiry. There are at least six forms of *E. glabra* x *E. maculata* around, from different crossing "events", and all are slightly different.

The one ESG has registered as Mallee Lipstick has grey-green oval leaves, shiny dark pink or maroon buds and bright pink flowers with white insides the corolla tube. Flowers mainly appear in winter. The full description can be found at <https://acra.biodiversity.services/info/rdetail/2334>

AALBG sells a very closely related form, which is yellow inside the flower. The photo next column shows the AALBG plant at top, and Mallee Lipstick underneath (pics from Ian Tranter).



Queenslanders have another form of the same cross that they call Trish's Pick – same leaf, perhaps a little more yellow on the bud. The "jury is out" as to whether this is the same as Mallee Lipstick or is different due to growing location: photo below shows Trish's Pick at top and Mallee Lipstick below (pic Ian Tranter).



The Queenslanders also grow a 5th cross which I have seen 4 at the Lowood Rail Trail – similar in leaf to Mallee Lipstick, it has pink flowers clustered at the ends of branches (up to 20 flowers). I think this variety is also taller than Mallee Lipstick and is better used as a hedge. We are considering registration as Happy Mac, which is the name under which it is sold by Peter Bevan.

Finally, the sixth form of the same hybrid has a greener leaf and is ACRA-registered as 'Beryl's Lipstick.' The flowers are pink inside and the plant is taller than the one we call Mallee Lipstick

(<https://acra.biodiversity.services/info/rdetail/745>).

However, getting to the question – **Yes definitely, anyone can use the name.** The ACRA registration does not give the registering organisation any rights over the "intellectual property" of the name (i.e., it is not a trademark) and anyone can use it (preferably on the same plant!). There is also no paperwork required, nor permissions needed. The whole idea of ESG using ACRA is to standardise names and we welcome their use by everyone!

In relation to payments, ESG gets a small amount of money on the sales of each Eremophila that is supplied by Native Plant Wholesalers to retail nurseries with a classy, coloured label (which ESG has had a hand in writing). NPW attaches these labels to the plant when they sell in bulk to the retail nurseries. Anyone (including ANPS groups which sell plants) can buy labels from NPW and, if you do, then NPW donates an amount per label to ESG. BUT, buying an NPW label is not compulsory, and would not be cost effective for many sellers.

So, you are free to make up your own labels however you wish for any plants that are ACRA-registered.

However, these rules do NOT apply to plants which have been registered under the Plant Breeders' Rights scheme e.g., *Eremophila nivea* 'Blue Velvet'. For each 'Blue Velvet' plant sold, a fee must be paid to the rights holder. The "normal" *E. nivea* can be sold without needing to pay anyone else. See Newsletter 123 for a longer explanation of these issues.

Parafilm

Don't forget that the Study Group sells parafilm by the metre, for grafting.

Price is \$2 per metre plus postage, as follows:

- 1 metre: \$3.10
- 2 metres: \$5.10
- 3 metres: \$8.20 (higher postage)

To order please deposit \$ into the SG account and email Lyndal telling her of your order.

SA Group meeting, March 2021

Tim Wood

Twenty-three enthusiasts came to Kadina on 27 March for our SA group six-monthly meeting. It was great to see that the speakers generally facilitated discussion, allowing for a lively day. We were especially pleased to see Lyndal Thorburn and Russell Wait come from interstate to add a different perspective and range of experience.

The meeting began with our national leader Lyndal outlining future directions of the ESG (see page 3). Lyndal would like the ESG to sponsor research that we believe would advance our knowledge of Eremophilas and is looking at partnerships with a Foundation type approach. This could be coupled with fundraising to part-fund the research. She would like to continue with the current newsletters and would like ESG members to form partnerships with like-minded groups to promote Eremophilas in their wider community.

Perry Jones from the Australian Arid Lands Botanic Gardens (AALBG) then anchored a question-and-answer session on propagation. He finds cuttings root better when the plant is flowering, which corresponds to new semi hardwood growth, and he uses an angled cut to increase surface area for absorbing hormone.

Members mostly used red Clonex hormone at 8g/L IBA (Indole-3-butyric acid) and some use blue Clonex 4gm/L IBA or Ezi-root which is a mixture of IBA and NAA (1-Naphthaleneacetic acid).

To prepare the cutting, Perry removes unwanted leaves, by bending the leaves backwards to the stem so they can be removed more easily. AALBG uses a propagating mixture of 7 shovels of Van Shaik's Bio-Gro potting mix to 2 x 2 litre bottles of vermiculite and 1 x 2 litre bottle of cocopeat, all mixed in a cement mixer. If the cuttings haven't rooted within 4 months, they re-dip the cuttings with Red Clonex. Perry has heated tables which he uses to keep the temp at about 22°C.

Perry does not use plugs as he has found they suck moisture away from the cuttings in summer

and so has moved to using squat square P1 tubes, of which 56 fit into a seedling tray with 1



cutting per pot in the above propagation mixture. After setting cuttings Perry waters them in with Seasol.

There was a discussion about those species suitable for cutting and those which have to be grafted. Ken Warnes suggested that any plant that snaps when bent, often with brown stem, is difficult to strike e.g., *E. fraseri* and *E. ramiflora*. For these species, shaving a small bit of cambium on one side above an angled cut promotes rooting. Perry finds he needs a minimum of 2 nodes to be inserted into the propagation mix after dipping in Clonex gel. He usually dips the cutting straight away although Rhonda Hall used to prepare all her cuttings then dip them all in Clonex just before placing into propagation media.

For wedge grafts, Perry used a scalpel slit about 1 cm into the stock, just above a node. His scions are about 5cm long and include the tip. He leaves the top of the half-circle of scion exposed and kept free of the wedge.

Russell Wait commented that if the stock shoots below the graft, then it could mean a compatibility issue with the stock, and

suggested an inter-graft e.g., with *E. denticulata*. The inter-graft can be done at the same time as the rest of the graft, or it can be done as a cutting graft, which is then inserted into the root stock 2-4 weeks later.

Russell feels this approach handles different sized scion and rootstocks better and is quite stable.

Russell used an Opti-visor with magnification to see better and used a scalpel to make the cuts.

Russell then demonstrated a double wedge graft, using a rootstock that is cut at the side and is about 2cm long. The scion (left) is cut twice, with the second cut made at 20 degrees to the first so that it will fit into the root stock from the side (left).

If a mature grafted plant stops growing then consider pruning it, as the stock might have reached its limit in provision of nutrients to the *Eremophila*.

The next speaker was Yuandamarra from Red Centre enterprises. He gave a presentation on how *Eremophilas* are seen in Australian First Nations' culture. They are incorporated into their beliefs, which we call their Dreaming.



Some uses are specific to women's business and Yuandamarra couldn't talk of these.

He made the point that distribution of plants has been influenced by European settlement and many plants were more widely distributed before settlement than our current understanding. So, in revegetation projects, his plant choice is informed by indigenous knowledge, for example he is using *Eremophilas* in a coastal revegetation project where European records show recorded none, but indigenous culture has stories of their existence.

For harvesting quandongs, indigenous people used to harvest the high fruit leaving the low fruit for emus so the trees would spread. Yuandamarra talked a lot about uncles, aunts

and grandparents in the context of plants survival as each plant has relatives to ensure its species survives! We need to be looking at many more years than European settlement when we look at plant species and conservation!

After lunch we enjoyed a free-for-all session starting with propagating from seeds. Russell Wait talked of collecting seeds from the bush, with appropriate permits, as garden seeds will likely be hybrids. He smokes seeds 90 minutes in a 44-gallon drum, using smoke created by burning fresh Eremophila and Acacia, as Eremophilas are often found where acacias grow. Seedlings are better potted up as soon as they appear as the tap roots are quite long and are prone to damage. Don Lill reported that he soaked seed in smoke water for up to 3 days.

There was a robust debate about inhibitors to germination, with Hans Griesser saying researchers had not found any inhibitors. However, a contrary view was put forward. We feel more research is needed. Cracking of fruit seems to aid germination, using secateurs with a stop to prevent complete cracking of the fruit.

There was consensus that planting seeds further apart in seed trays gave better germination, suggesting an inhibitor may be present.

Pruning was also canvassed and most felt Eremophilas respond to pruning, as long as you don't prune below the lowest leaves.

We finished by travelling to Coral Johnson's where we saw a dry bush garden without added water, demonstrating Eremophila's resilience.

The group decided on six-monthly meetings, but the next one could be October, as September seems full. The Lill's will investigate the Riverland and their wonderful garden as a venue. Watch this space.

In closing I would like to thank all of you for making the day so enjoyable. The feedback I received shows you really enjoyed it. As Ken would say, keep sharing our plants and experiences, and see you soon.

Queensland Group Meeting, May 2021

Noreen Baxter

The group is planning the trip to Myall Park Botanic Garden in July and will collaborate with Dick Harding regarding suitable plantings for Myall Park. The Eremophila bed will be near the Gallery entrance and showy plants are to be considered.

The plan is to travel to the park on Friday 16 July; spend Saturday & Sunday planting up the Eremophila bed and botanising in the gardens; and drive home on the Monday 19th. Participants can attend for part of the weekend if needed. Some accommodation is on-site and some in a nearby town and is being coordinated by Noreen Baxter.

The group discussed hybrids. Jan hopes to develop a list of the hybrids being grown locally to try to clear up some of the confusion surrounding the names applied to the hybrids. She will record the hybrid name/s, and the parentage, supported by photographs. Everyone was asked to provide photos of their hybrids.

Jan led the discussion, saying a "hybrid" is a cross between any two plants [not the same species] which can be other species or hybrids (sp. x sp.; sp. x hybrid; hybrid x hybrid). In nature, evolution results from hybridisation and mutation, if a new natural hybrid is fertile and throws seedlings, that are consistent and stable, it can become a new species.

The term "form" applies to the same species that has been adapted to a different environment through a genetic change e.g., a prostrate form of an upright shrub or an unusual flower colour.

Cultivars are selected forms of a species or a hybrid that are being grown commercially e.g., *E. glabra* ssp *carcosa* ground cover form (ACRA-registered as 'Fruit Salad'). Many hybrids are sterile, so can only be propagated by cuttings or grafting.

Chimeras re not hybrids but are a mix of plant cells (see Ian Tranter's article in NL 117). They never occur in nature; they are formed as a result of grafting when the inner surface of one plant

combines with the outer surface of the other plant. These can only be propagated by cuttings and may not be stable (and hence can't be registered as a cultivar with ACRA).

Eremophila flowers can be divided into two groups according to the flower structure and whether they are pollinated by birds or insects. Bird-pollinated flowers have stamens and styles extending outside the flower and the petals are usually spaced four up with a thin bottom petal curved down. Insect-pollinated flowers have spread out petals, with the bottom petal broader so the insect can land on it. Many of these also have dots or lines that lead the insect inside the flower to the stamens and styles. Eremophila hybrid flowers usually have a similar structure to the parental plant's flowers.

As discussion progressed it became evident that Janet Flanigan had already started a similar record; and Lorelei Bartkowski has photographic records for many of the hybrids sold at her nursery. Over the next meetings the group will work through these records, editing and updating them after discussion. When Jan has it all sorted out it will be circulated for everyone to study and make comment on, then the agreed corrections can be made.

The meeting concluded with a trip up one section of Pete's Rail Trail. Just a few of the Eremophila hybrids seen along the way were *E. 'Piccaninny Dawn'* (*E. oldfieldii* ssp. *angustifolia* x *E. oppositifolia* ssp. *oppositifolia*); unnamed (*E. glabra* x *E. decipiens*); *E. 'Yanna Road'* (*E. latrobei* x *E. gilesii*); *E. 'Smoke Haze'* (*E. nivea* x *E. christophorii*); and *E. 'Big Car'* (*E. bignoniiflora* x *E. glabra* ssp. *carnosa*) plus heaps more!! There were also unusual forms of *E. glabra* including Bellala Gold and Green and Gold.

Future 2021 Meetings

16-19 July 2021: Myall Park Botanic Garden.
9 October: Laylee Purchase, Darling Heights.

For more information contact Jan Glazebrook:
janlazebrook (at) gmail.com

Victorian Group meeting, May 2021

Neil Duncan

Ten members joined the meeting, including new member Jen Eldridge.

The first topic discussed was what natives grow well with grey-leaved Eremophilas and shade-tolerant Eremophilas. We couldn't help with the former, but John Upsher suggested *Eremophila pterocarpa* will grow in part shade as the grey foliage stands out and it copes with the situation. Jan Hall suggested *E. platycarpa* as a good replacement for an *E. nivea* that had been severely damaged at Merele Webb's.

The main topic of the meeting was propagation.

Only two participants had grown Eremophilas from seed. Bob Blake had sown *E. maculata* seed without pre-treatment in a mixture of coarse stone and vermiculite then used smoke water. Germination was slow and sporadic (about 3 months) but was reasonably successful.

John Upsher had collected fruit from a *E. bignoniiflora* and removed the fleshy part to extract the small white seed about the size of a rice grain. These were then sown into a seed raising mix. After two weeks three of the five seeds grew; two were cream and one was pink flowering.

A few more of us grew Eremophilas from cuttings with most having some form of bottom heat. Bob has his at about 22°C, Neil Duncan at 20°C and John at 18°C. Anne Langmaid, at the Melton gardens, doesn't use bottom heat and Mike Beamish grows his cuttings in a cold frame.

We all used purple Clonex (3000 ppm) although Mike may also use the red Clonex (8000 ppm) depending on what he has available.

The cutting mixes varied, with Bob using a 50/50 mix of coarse perlite and seed raising mix, Anne 50/50 mix of vermiculite and potting mix, John 50/50 mix of vermiculite and coco peat, Mike 50/50 seed raising mix and propagation sand. Neil had used three parts coarse sand to 3 medium perlite:1 peat/coco peat, but when the sand was not available last year, he changed the mix to 3 perlite and 2 coco peat/peat moss with

similar results to the previous mix, but less damage to the root system when tubing up.

We don't use automatic watering so plants can dry during the day but at night the humidity can rise with Bob recording a 99% humidity at night but disease not being a problem.

Three of us had grafted Eremophilas onto *Myoporum insulare* and *M. montanum* or *M. Monaro Marvel*. There was some discussion about the difficulties of using some of the rootstocks particularly *M. montanum*, which shoots, adaptability of the rootstock to the soil and its stability in wind.

Tomato clips were used to hold the grafts together, or parafilm (an elastic clear plastic film). Bob uses cutting grafts with success while John pots up his rootstock before grafting, again very successfully. Neil grows few grafts but uses either method with limited success.

Other Issues

Glenda Datson (near Wodonga), in spring, had what seemed to be caterpillars (with webbing on the leaves) causing many of the Eremophila flowers and foliage to go brown. She cut off affected foliage and flowers but didn't know if it was due to the wet spring/summer or if it will be an ongoing problem?

Similar problems have been reported in SA, but only on *E. maculata*. Glenda has found that the *M. parvifolium* throughout the garden seems to be affected in the same way and large areas have died. After the meeting, Jan's collection was viewed and almost all the *E. maculata* were similarly affected by dead branches and tips. This is not a 'winter-blues fungal' problem rather, it occurs in mid to late spring and summer.

Jan (Yarrowonga) said there had been a lot of damage in Rutherglen due to grasshoppers but no damage where she was.

Topics for next meeting – the *E. hygrophana* group and *E. fraseri* and *E. flaccida* identification. Naming of forms of Eremophilas. Place and date TBA – for information contact Neil Duncan (neilduncan61 (at) gmail.com).

From Your Letters

Richard Clark (WA): I have grown *Eremophila subfloccosa* successfully in Dunsborough Western Australia. I don't know the subspecies (I found the survey a bit too detailed for me).

Unfortunately, I have now lost the garden. It had over 30 Eremophila species, and over 200 Western Australian species. I did a planting in 2015 and again in 2016 or 2017. My best flowering photos are from April to October.

In WA, we are not good at the study groups. I have posted a page on ANSPA study groups on our website:
<https://www.wildflowersocietywa.org.au/grow/study-groups-of-the-australian-native-plant-society-australia/>

I am also chair of a resurrected 'Grow' subcommittee of the WSWA management committee, where I am also a member. I am WA rep. for ANSPA, and I like to think my portfolio is growing, or the cultivation of Australian plants, particularly Western Australian.

I am in the middle of planting a new garden at my daughter's house. After this year's plantings, it will have well over 200 species, about half of which were planted last year.

I am a semi-retired music teacher, and for the last 20 years or so, have been seed collecting for the Geographe Community Landcare Nursery where I also do cuttings propagation:
<https://gcln.org.au/>

Ron and Claire Dadd (WA): Below (and over) is a photo of a yellow form of *Eremophila pterocarpa*, from near Murchison WA.





Charles Farrugia (NSW): The constant wet weather we had in March in the Sydney region (March) has taken its toll. *E. fasciata* –10-12 years old! – even though it has a plastic cover over the top of the plant, most of the foliage has died and any new growth that appears hasn't had the chance to mature due to the constant wet conditions. Or it might even have reached its Use By date. I have never managed to have a successful graft of this species.

E. dempsterii (white form, 15 years old) – this did probably get to the Use By date. No matter how many times it got pruned, it never set new growth from the mature wood. One in the front garden (4 years old) is pruned back 25% after flowering.

Other species lost – *E. punicea*, *E. cuneifolia* (small leaf form) and *E. maculata x glabra* 'Crazy Mac'.

E. acrida 'Bushy Park station' was dying a slow death during the drought and the current conditions finished it off. I have managed to successfully graft this species. It is in a large pot, getting a bit of shelter under the awnings.

E. strongylophylla certainly doesn't like the wet weather. After taking off all the dead stems it is

half the original size. I am tempted to dig it out and re-pot it. I did this with another *E. strongylophylla* and is recovering well.

Some species that are looking surprisingly very well (so far) are: *E. eriocalyx* (3 forms), *E. bowmanii* (white form), *E. dalyana*, *E. stenophylla*, *E. glabra x georgei*, *E. glabra x subfloccosa*, *E. pterocarpa*, *E. rotundifolia*, *E. forrestii* (grey form) and *E. macdonnellii* 'Simpson Desert'.

(June): This is an *E. maculata* that I planted at my neighbour's. It reminds me of Winter Gold but it grows a lot smaller – about 50 to 75cms.



(April): I feel guilty sharing this, considering the tragic losses during the recent floods in Northern NSW & Qld. My garden losses are insignificant to what occurred during the floods (in March). But we belong to a Study Group and the information could be useful to the study of Eremophilas.

My garden has heavy clay soil and our area had around 300 mm of rain in 4 days.

Eremophila losses: *E. fasciata*, *E. rugosa*, *E. glabra x georgei*, *E. vernicosa*, *E. neglecta*, *E. maculata* 'Aurea', all long established plants.

Potted – *E. arbuscula*, *E. alternifolia ssp. latifolia*.

I won't be surprised if there are some more losses in the future.

A couple of surprises – not affected at all – *E. rotundifolia*, *E. forrestii* (grey form), *E.*

bowmanii (white form), *E. bowmanii* ssp. *nutans*, *E. warnesii* (some foliage affected), *E. glabra* x *subfloccosa* – plenty of affected foliage but recovered quite well, *E. macdonnellii* ‘Simpson Desert’ – in the garden and potted – not affected yet but the green form of *E. macdonnellii* is not looking good and neither is *E. subfloccosa* ssp. *lanata*.

Rob Grundy (NSW): I lost a couple of *E. rotundifolia* and *E. delisseri* and a grafted *Hakea grammatophylla* (with all the rain). I think I ended up with about 300mm but I haven't added it up yet. An *E. youngii*, *E. maculata* and two grafted *E. platycalyx* had water up to 4 inches of their stems totally submerged for 3 or 4 days but seem to have no ill effects.

Phil Hempel (NSW)

On reading the article by Anne Langmaid on *E. mackinlayi* at Melton being a chimera, I recall someone at La Trobe University studying grafted plants to see if the scion material on a grafted plant changes slightly by movement of the mitochondria.

His theory was that if cuttings from a grafted plant were regrafted and this repeated many times, then eventually a change would occur. Maybe this Melton chimera is showing the result of this.

The following is a link to another similar study.

<https://phys.org/news/2016-03-cell-to-cell-movement-mitochondria-graft-junction.html>

Carolyn Stewart (NSW) (Gardening with Angus): Hope you are well and enjoying autumn! I had a question from a fellow who wants to prune Eremophila in his garden. I pointed him in the direction of your article (on the Gardening with Angus site), and also the link to the Study Group newsletter archive.

He was very clever and has emailed Russell Wait for advice on how to prune Pink Pantha! Lovely Russell duly gave him great advice, which he is going to follow. So, I asked the gentleman if he could take before and after photos so we can do a show and tell article plus some social media education, and these are

below (top is before prune, and underneath is after-prune).



So we are keeping the ball rolling to promote Eremophilas.

Chris Strachan (Vic): Many, many thanks for your continuing brilliant newsletters that are eagerly looked forward to and enjoyed immensely. We all learn so much from this sharing of information from both experts and beginners - there is always a ‘light bulb’ moment in every newsletter.

Just commenting on the interesting articles re Chimeras in the last Newsletter.

During Victoria’s big COVID lockdown last year I sent some pieces of my ‘hygrophana’ and ‘mackinlayi’ to Russell Wait, asking for help in identification. Unfortunately, Australia Post took 2 weeks to get it delivered an hour and a

half away! They arrived in poor condition, which made it hard for Russell, but he said something wasn't quite right.

It was while he was writing his article for this latest newsletter that he remembered my cutting pieces and alerted me to the fact that I possibly had the Chimeras described in the article. I did originally purchase the *E. mackinlayi* from Melton Botanical Gardens and Anne Langmaid's article confirms the parent plant is a Chimera. I pulled mine out of the garden as it was growing too big, but I have one in a big pot.

The '*E. hygrophana*' that I also pulled out was, I am almost certain, purchased from Australian Arid Lands Botanic Gardens Nursery.

However, if I did bring it home from Arid Lands, have they also been propagating from a Chimera descended from original?

Kevin Stokes (NSW):
Here is a pic of *E. grandiflora* (grafted) taken at Phil Trickett's (Milton, NSW) (now on image database!



www.anpsa.org.au/eremophilaSG/gallery).

Ken Warnes (SA): If, following the huge rains many had have recently, you see strange, fleshy, spear-head shaped cotyledons in your gardens, immediately suspect that you may have volunteer Eremophila seedlings. Russell and I transfer them to small pots with very free draining mix as soon as they are big enough to handle. Carefully hardened up, the survival rate can be surprisingly good. Of course the "Fun" part starts soon afterwards, what on Earth are they?

Face that one, if and when you come to it.

Tim Wood (SA): Here is my *E. maculata*, during pruning.

Part way through pruning, below:



Pruning completed:



Re-shooting, two weeks post pruning:



Next Issue

Next issue features species is *E. laanii*. It comes in several colour and shape forms and hybrids with *Myoporum* and *E. pantonii* have been reported.

I will also have the results of the Fertiliser Survey written up by then!



Call for Proposals
by the EREMOPHILA STUDY GROUP (ESG)
of the
AUSTRALIAN NATIVE PLANTS ASSOCIATION (AUSTRALIA)
Inc (ANPSA) ABN 56 654 053 676

The ESG wishes to provide financial support for a grant application under the Australian Research Council (ARC) Linkage scheme, on the topic of **seed germination** in the Australian plant genus **Eremophila** (and others if desired). Proposals for support are invited from researchers in Australian research institutions. The proposed research should aim to enhance mechanistic understanding of factors affecting the effectiveness of seed germination and to provide practical outcomes that can be translated to the horticultural industry and other end users.

Expressions of Interest should be no more than two pages on institutional letterhead and contain succinct information about:

- Proposed team
- Proposed research hypotheses, approaches, and methodologies
- Alignment with ARC Linkage grant funding criteria
- Proposed time frame and budget
- Expected outputs (presentations, research papers) including target journals
- An outline of how the lead researcher and team will work with a steering group made up of Study Group members (largely amateurs), including aspects of project governance and willingness to present findings to Study Group members

Due date: 9 July 2021

For discussion of technical aspects please contact Prof. Hans Griesser, through hansgriesser@gmail.com (phone 08 8389 1295).

Expressions of interest signed by the lead researcher should be submitted to: Dr Lyndal Thorburn, Leader, Eremophila Study Group, through email to lthorburn@viria.com.au (phone 0418 972 438).

The Expressions of Interest will be assessed by a sub-group of the ESG and any collaborators already agreed. Preferred partners will be advised by 23 July 2021.

It is expected that the selected research partners would take the lead in writing the full application for submission to the ARC by 16 August, in consultation with ESG, its parent body, ANPSA and other supporters. ANPSA and any other supporting organisations (currently under discussion) will write letters of support for inclusion in the application and will contribute some funds in cash and in kind.

Background

The ESG is one of 17 native plants study groups operated under the auspices of the ANPSA. ESG operates Australia-wide with 160 members. ANPSA itself consists of 8 member Societies in each of the States, the ACT and NT, representing more than 7000 individuals. The aims of ANPSA can be summed up as growing, conserving and appreciating the Australian flora, and include the following: protect, conserve and enhance Australian indigenous plants in their natural habitats; promote and support the study and cultivation of Australian indigenous plants for their intrinsic value and their ecosystem services; communicate knowledge about Australian indigenous plants; encourage the cultivation of endangered Australian indigenous plants in botanical gardens and other reserves; encourage the growing and use of Australian indigenous plants in home gardens, public places and for revegetation projects and rural plantings.

The ESG's main aim is to enhance understanding and horticulture of the genus *Eremophila* [Chinnock], found in drier areas of Australia. There are ~236 described species of *Eremophila*, based on the monograph by Chinnock² and more recent work by Bevan Buirchell and Andrew Brown in WA. Further work underway on genetics and taxonomy (e.g., by Dr Rachael Fowler³) is expected to increase that number in coming years.

Eremophila are becoming more popular for gardens because of their drought hardiness and wide variety of forms and flower colours. ESG has started working with plant wholesalers to identify, grow and release new varieties of *Eremophila* to retail nurseries, to increase the public's knowledge of *Eremophila* plants as garden subjects, and to standardise naming of *Eremophila* and *Eremophila* hybrids and cultivars. For the retail market *Eremophila* are currently propagated by cuttings or grafting, with some 50 species only able to be propagated by grafting on to *Myoporum sp.*⁴

There have been attempts in the past to use *Eremophila* as local species for amelioration of mine sites, but such applications need mass propagation from seed. Seed grown plants also add to genetic diversity amongst populations of rare species – at present, 20 species are listed as rare or endangered and while some of these are available commercially (e.g., *E. nivea*) these are mostly clones of one or a few collections in the wild and are thus of limited use in maintaining the genetic diversity of viable natural populations.

However, *Eremophila* are difficult to grow from seed. Fruits are dry with a papery exocarp or are drupaceous with a fleshy or succulent mesocarp and a woody or crustaceous endocarp and contain between 2 and 12 seeds.⁵ Seeds are often damaged if they are extracted by mechanical means, and little is known about viability. Researchers started to examine germination triggers in the 1990s⁶; however, there is no published recent work and there is insufficient understanding of chemical inhibitors and triggers of germination (apart from germination being encouraged by both rain and smoke and reduced by increasing seed age). For ESG work on germination see the newsletters available at www.anpsa.org.au/eremophilaSG/

MANY THANKS TO PROF. HANS GRIESSER FOR HIS ASSISTANCE AND LEAD ON THIS PROPOSAL

² Chinnock, RJ (2007): *Eremophila and allied genera: a monograph of the plant family Myoporaceae*

³ Fowler, Rachael (2018): *Phylogeny of Eremophila and tribe Myoporeae (Scrophulariaceae)*, PhD Thesis University of Melbourne

⁴ *Australian Plants Journal* Spring 2020(vol 30) – Eremophila Issue – page 335

⁵ Richmond, G and Chinnock, R (1994): *Seed Germination of the Australian Shrub Eremophila* (Myoporaceae), *The Botanical Review* 60(4), October – December 1994, pp 483-503

⁶ *ibid*

About the Study Group

The Eremophila Study Group aims to further knowledge about the cultivation, propagation and conservation of the 200+ species of Eremophilas, an endemic genus of Australian plants. It is one of several Study Groups which operates under the auspices of the Australian Native Plants Society (Australia) (ANPSA).

SUBSCRIPTIONS

Membership is \$5 per annum. Subscriptions for a financial year can be sent by cheque posted to **3 Considine Close Greenleigh NSW 2620** or (preferably) paid by direct deposit into the Group's bank account:

BSB: 105-125

Bank name: **Bank of South Australia**

Account No.: 013 751 340

A/c name: **ASGAP Eremophila Study Group**

Please put your surname and state/group membership in direct deposit details

ANPSA policy is that regional groups pay for two subscriptions in recognition that Study Group material will be used by several group members

New members, please download the application form from our website and send with your cheque/transfer (details below) <http://anpsa.org.au/eremophilaSG/index.html>

Study Groups allow members with specific interests to develop that interest to the fullest extent and to contribute in a practical way to the body of knowledge on the Australian flora. Active members collect information on the genus and send their observations to the leader who collates and publishes the information, in a newsletter or in other Society publications. The Study Group can record any aspect of cultivation, propagation and ecology of the preferred genus. Study Groups are expected to publish at least two newsletters per year.

In addition to paying annual fees, members must also be members of an ANPSA-affiliated regional society (<http://anpsa.org.au/region.html>).

This Study Group aims to study the cultivation and propagation of the genus *Eremophila*; to expand cultivation of *Eremophila* in gardens; and to examine the growing requirements of the various species to improve their reliability.

Leader: Dr Lyndal Thorburn, Life Member of ANPS Canberra. Contact her through [lthorburn \(at\) viria.com.au](mailto:lthorburn@viria.com.au) or phone 0418 972 438. **Address:** 3 Considine Close Greenleigh NSW 2620

Honorary members: Ken Warnes and Russell Wait

Newsletters are available in Black and White by post and in COLOUR by email or CD.

For more general information about Study Groups, contact **Ms Jane Fountain** Coordinator, Study Groups, Australian Native Plants Society (Australia) ([jlfontain5 \(at\) gmail.com](mailto:jlfontain5@gmail.com))

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NEXT NEWSLETTER ~August 2021

(Earlier if I have enough info to fill 24 pages!)