

Australian Native Plants Society (Australia) (ANPSA)

Eremophila Study Group Newsletter No. 123



Newly named cultivar, Eremophila ‘Meringur Isaac’ – a hybrid of *E. polyclada* and *E. bignoniiflora*

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E. bignoniiflora x *polyclada* (photo Keith Boschen)

Letter from the Editor

Welcome to a bumper May newsletter – great to see the response by heaps of members to my request for info on *E. polyclada* – this is vital to the purpose of our little group, as we seek to understand more about its horticulture and growing conditions.

It is really important that we continue this work – so many species have been reduced to just a few (or even one!) known specimen in the wild – Ken Warnes talks in his letter about *Eremophila delisseri* possibly having only one known plant left in the wild, and I recently looked up *E. ciliata* for information for a sale label for ANPS Canberra, to discover it is known for only 100 plants in the wild. I had thought *E. nivea* was in bad shape when I found it was only known from a single population of 200 plants.

I have agreed to speak at the forthcoming Blooming Biodiversity ANPSA conference in Albany in October (see page 14). I am also speaking at the East Hills APS NSW group on the evening of Wednesday 3 July 2019 (see <https://austplants.com.au/East-Hills>) – both topics being our study group and our work in growing this wonderful genus. Thank you everyone for all your great support in keeping our work relevant and new and helping us contribute to the Eremophila body of knowledge.

On a related topic, I am seeking members' views on registration of cultivars – see page 7.

Happy reading for this edition and keep those contributions rolling in!



Lyndal Thorburn
Leader and newsletter
editor



Field Trip in 2020

Plans for an ESG gathering in Queensland from 31 July 2020 to 2 or 3 August 2020 are firming up, to visit Warwick, Toowoomba and Lowood.

See **page 14** for more details

What's New in the Study Group

Native Plant Wholesalers' donations

I am pleased to announce that the Study Group has formed a relationship with Native Plant Wholesalers (NPW), based in South Australia, and the wholesale grower of many of our new varieties including *E. 'Meringur Isaac'* (see pages 5 and 16). NPW has graciously agreed to donate a portion of each sale of this cultivar to the Study Group – we will use these funds, as they accumulate, to further horticultural research into Eremophilas and the objects of the Study Group.

Life member recognition

Our wonderful Queensland sub-group leader Jan Glazebrook and her husband Denis Cox were made life members of the Native Plants Queensland Logan River Branch recently. They are pictured below with another life member recipient, Sandra Connolly.



Jan and Denis were recognised for “exceptional contributions to the propagation, cultivation and conservation of and education about Australian native plants.” The Eremophila Study group adds its congratulations to this recognition.

New members

We welcome new members APS Tamworth (NSW), Judy Baghurst (SA), Megan Dixon (ACT), and Chris and Ross Reddick (Qld).

Eremophilas in the News

Three more new species have been described – more in the October Newsletter, but see *Nuytsia* 30:25-31, March 2019 in the meantime.

Feature species - *Eremophila polyclada*

Lyndal Thorburn

Eremophila polyclada is a dense shrub with leaves less than 3.5mm wide and usually 20-40mm long. It grows to up to 3m high (sometimes higher) x 5m wide. It is one of the larger flowered Eremophilas, with one to two white, to pale lilac, flowers per axil. The flowers have pale purple spots, are 20-35mm long and occur in summer. The flowers are pollinated by insects (photo Russell Wait).



The bush is described as “divaricate”, meaning that the branches come off the stem at a ninety-degree angle (or close to that). As a result, the branches cross over each other in the centre of the bush, giving it a tangled appearance (and indeed, “polyclada” means “many shoots/branches”). The common name is Twiggy Emu Bush, or more commonly Desert Lignum. Chinnock notes that the species loses its leaves in drought.

E. polyclada is very closely related to *E. bignoniiflora*. The latter’s leaves are wider (>4.5mm), it grows as a small tree, and the fruit is a lot larger and ovoid in shape (compared to ellipsoid in *E. polyclada*).

Range

E. polyclada occurs naturally in the drier parts of north-western NSW and southern Queensland. It is also found along small areas of the Murray River in NSW and at Coopers Creek in South Australia. Don and Chris Lill report that it used to be found on the floodplains around Renmark,

but it is locally extinct in the wild there now. There is one isolated record of a population just west of the NT border, north east of Harts’ Range. Its natural habitat is along rivers, creeks and drainage lines on alkaline and heavy clay soils, and it is also associated with Acacia woodland.

Horticulture

E. polyclada grows in a wide variety of soils, but highly alkaline soils can cause chlorosis and burnt tips.

It can be very vigorous. It is drought hardy, with many members reporting their plants get only what rain falls out of the sky, in “wet” years getting 600mm of rain and often only around 350mm. It is, however, also one of those species that flowers after rain, so rain or supplementary water in summer will lead to a flush of flowers – Charles Farrugia reports that his potted plant in Sydney flowers whenever he provides supplementary water, and that it survives well without that.

E. polyclada is a great feature plant but it needs to be in a big garden so it can reach its full glory. However, it responds well to pruning, with Boschen/Goods/Wait reporting that old bushes can be pruned to ground level and will re-shoot rapidly, at any time of the year (except don’t do it before flowering as you will lose all the buds! – they recommend autumn).

The Lills also report that it used to be used as a street tree in Renmark, and is a good hedging species. It is also used in the street and as a hedge in private gardens in Alice Springs and Port Augusta (pic below from Julie Owen). However, Helen Lane believes it isn’t good as a hedge because it is inherently “untidy” – I guess that means try it and see!



Russell Wait also reports that the flowers are rather attractive to sheep – the photo over, which he took on a sheep station, shows large bushes, covered in white on the top but devoid of them lower down, where they have been eaten by the sheep.

The Lills also report that the younger plants are attractive to kangaroos.



Boschen/Goods/Wait also say the species is known for its longevity, with Marie Good's plant being 35 years old.

It seems to withstand heat rather well too – Julie Owen says her plants were quite OK in their recent 49.5°C.

Frost

There are differing views about its frost-hardiness. Boschen/Goods/Wait describe it as frost-hardy, but my experience in Queanbeyan (where we live on a north facing slope under some eucalypt shelter) is that it is cut back by our heavy frosts (down to -8°C) to near the ground, and seems to take some time to recover, growing vigorously again in late summer, just in time for the next lot of frosts. It was very sad watching our plant struggle for many years, and it succumbed after about five years, having only grown to about 50cm high at its best. Hans Griesser has similar experience to us – his temperatures dip to -6°C in severe winters and last year his plants lost most of the previous year's growth. Bernie Shanahan's plants also struggled in the frost (down to -6°C) and died. It is growing extensively around Alice Springs where the frosts also get to -6°C but these plants have supplementary water.

The Australian National Botanic Gardens has several of this species and finds that they do best

where the soils are not too wet during winter and where there is some radiant heat (e.g. off a wall) or where an upslope position keeps them warmer (out of the frost pockets). Hence, it wouldn't be termed a frost-hardy species in most typical Canberra sites. Amber Howe, horticultural specialist at the ANBG, also notes that the plants don't like leaf litter built up around their stems as this induces rot.

Jan Hall also reports growing it at frost on -6°C, but that mostly their winter minimums are around -1°C to -2°C. Don and Chris Lill report that they have several in their garden in Renmark, where they get many frosts down to -5°C, and that it has no problems. It may be that they tolerate the colder temperatures better when there is water around to counteract the drying actions of frost, and clearly one or two days of minus 6 are easier to resist than a dozen!

Others living in slightly warmer climates seem to have no trouble at all. Jocelyn Lindner's plants also have no trouble with frosts of -3°C, and neither do the plants at Norma Boschen's (Vic) and Julie Nermet's (Tas) both of which where get to -2°C. Marie Goods also reports her plants are fine at -2°C to -3°C but occasionally receive -6°C. Helen Lane's are also OK to minus 2 degrees.

E. polyclada is growing in Port Augusta in private gardens and at the Arid Lands Botanic Gardens (where it rarely gets below -3°C) and as a wind break and at the Melton Botanic Gardens where there are occasional frosts, but where the long-term winter average is well above zero.

Weighing all this up, the conclusion seems to be that the species is frost hardy to minus 5, and can tolerate minus 6 for a short time or when there is supplementary water or a warm wall nearby.

Propagation

E. polyclada strikes easily from cuttings. It also has a tendency to layer, by growing roots from branches which have arched over and touch the ground.

Don Lill is currently assessing it as a potential root stock for grafting.

Hybrids

There are four hybrids known of *E. polyclada*: two with *E. bignoniiflora*, one with *E. divaricata* and a fourth involving one of these hybrids.

E. bignoniiflora x *E. polyclada* – Big Poly

This hybrid was discovered in the wild by Russell Wait, in the 1970s in northern NSW. However it has since been found in several locations and occurs naturally in Victoria, NSW and Queensland.

It is often sold as Big Poly, which is the nursery industry's adopted name, but it is not ACRA-registered.

This hybrid has a pale pinky-mauve flower that is about the same size as the *E. bignoniiflora* flower, with a white throat that also has mauve spots. The leaves are also similar to *E. bignoniiflora*, being long and weeping. It flowers from winter to early summer (photo Russell Wait).



The bush itself is large, with some nursery sites stating it reaches 7m high x 3m wide.

According to Russell, this hybrid has some variability, with variations in leaf size and colour depending on soil, sun and temperature. This could be due to the plants available coming from several hybrid populations across its range. The plant in the pic next column was at Natya, Vic (photo Russell Wait).



Big Poly is a very attractive plant and can be used for hedging as it grows rapidly to 3m if well-watered. It may not be as forgiving of severe pruning, with Jan Hall reporting that a specimen (growing in clay) that she cut back to ground level has since died. She notes that, while it is drought hardy, it needs supplementary watering to keep it flowering at its best, and has a tendency to woodiness as the plant ages.

It grows in heavier ground than many Eremophila, with many members reporting that they grow it in clay soil and one even that hers thrives next to the tank overflow.

It seems to be one Eremophila that will withstand strong winds – Catriona Bate reports that “our savage westerly winds in winter smash up many of our Eremophilas but the Big Poly survives unscathed.” She also praises the plant as a survivor in their humid, summer-wet garden, saying that it “flowers profusely for long periods and without any disease.”

Many members grow this hybrid. It is reported as frost hardy to about -8°C. Members' experience supports this, with Ros Walcott from ACT saying it has no trouble with frost down to -8°C and “winter does not bother it at all.” Fiona Johnson grows her plants at 960m altitude and reports they are tolerant of both snow and frost to -5°C.

E. bignoniiflora (deep pink) x *E. polyclada* – 'Meringur Isaac'

This hybrid was grown by Ray Schilling from seed. Russell reports that there were two hybrids from the same seed source, but while the second hybrid had larger flowers it was harder to

propagate and hence the first, now known as Meringur Isaac, was chosen to grow.

It is a dense shrub of 5m x 3m with green leaves and violet coloured flowers 35mm long in spring and summer. The bush shown below was at Natya, Vic and was about 12 months old at the time it was photographed by Russell Wait.



The flower is broader than it is tall, and the white lips on four of the petals are covered with purple spots (photo Russell Wait).



Like the others in this group, E. 'Meringur Isaac' responds well to pruning. Pruning makes it an attractive dense shrub with spectacular flowering displays and hence it can be used as a feature plant. It has now been registered through ACRA (see page **Error! Bookmark not defined.**).

E. divaricata x *polyclada* – *Summertime Blue*

This hybrid was found in the wild at Lake Walla Walla on the Murray River flood plains in northwest Victoria. Russell Wait reports that several hybrids were found at the same time and the best one was chosen for cultivation. It was registered as a cultivar with ACRA in 2013.

E. Summertime Blue is intermediate in size between *E. divaricata* and *E. polyclada*, growing to about 2m x 3m with large, bright flowers. It is more open than the *polyclada* parent, and has short leaves. The photo below was taken in Cunnamulla, Queensland.



The flower is pale lilac tinged with deep lilac and has a white throat (photo Russell Wait).



E. Summertime Blue plants generally prefer full sun but will cope with part shade. It is more frost hardy than *E. polyclada*, but plants in Canberra are still known to suffer frost damage without overhead protection. It flowers freely in summer, with the flowers well-displayed on arching branches (pic over by Lyndal Thorburn).



Boschen/Goods/Wait recommend it for coastal regions as well as drier inland areas, as it grows well in Sydney and they also say it is good for hedging. Ken Warnes has it growing well with no rain for 7 months, in 150mm of soil over sheet limestone.

Like the parent species, *E. Summertime Blue* responds well to supplementary watering.

Triple cross

A further hybrid, reportedly of *E. Summertime Blue* with *E. bignoniiflora*, has been reported and is grown by a few members in South Australia. It is large (6m x 3m) and fast growing, makes a good wind break and is long-lived, with specimens older than 20 years being reported. This hybrid can grow as a small tree, up to 4m high. It does not seem to strike as readily as the other hybrids, although Ken has reported that his original 20-year old specimen has just thrown up a sucker which is already 1m high.

Acknowledgements: Thanks to Ken Warnes and Russell Wait for input to the original text.

The following members also responded to a request for info about frost hardiness and general horticulture: Catriona Bate, Norma Boschen, Charles Farrugia, Marie Goods, Hans Griesser, Jan Hall, Fiona Johnson, Geoff Kenna, Helen Lane, Jocelyn Lindner, Chris Lill, Chris Nayda, Julie Nermut, Julie Owen, Steve Priestley, Phil Price, David Pye, Bernie Shanahan, Russell Wait, Ros Walcott, Ken Warnes. Special thanks to Amber Howe from ANBG, who sent info after being forwarded my original email by another member.

ACRA, PBR and the Vexed Issue of Cultivar Registration

Lyndal Thorburn

This article started as an attempt to sort out in my own mind the issues around ANPSA's withdrawal from ACRA (the Australian Cultivar Registration Authority) in January 2018, and what (if anything) it means for registering cultivars of our Eremophilas.

While information on ACRA and Plant Breeder's Rights (PBR) is available online, it isn't easy to weigh up the pros and cons of both systems and see the way forward. Hence, this article seeks to explain the two registration systems and discusses issues that may affect the Study Group and cultivar registration.

Read on to discover more, and please send your views to the editor so we can have a wider discussion.

ACRA

What is ACRA

ACRA was formed in 1962. At that time it was based in Melbourne and the ACRA committee comprised members of the Society for Growing Australian Plants (SGAP) and representatives of herbaria in Sydney and Melbourne. The Australian National Botanic Gardens (ANBG) joined ACRA in 1970 at the instigation of John Wrigley. Then, in 1973, other botanic gardens in SA, WA and the Federation of Australian Nurserymen also joined.

In 1974, the Authority moved to Canberra and ANBG provided limited staff support, with an employee being given a small amount of time each week to manage ACRA business and be official Registrar. Previous registrars (ANBG staff) have included Geoff Butler and Ben Wallace and the current Registrar is Paul Carmen.

By the mid-1970s had representatives from

- ANPS (Federal);
- Botanic Garden and State Herbarium, Adelaide;
- Royal Botanic Gardens and National Herbarium, Melbourne;

- Kings Park and Botanic Garden, Perth;
- Royal Botanic Gardens and National Herbarium, Sydney;
- Federation of Australian Nurserymen's Associations;
- Australian National Botanic Gardens, Canberra;
- Royal Botanic Gardens, Hobart;
- Townsville Botanic Gardens; and
- Darwin Botanic Gardens.

After operating informally for several years, ACRA was incorporated as an association in the ACT in 1989 (Association number A01593). It is staffed by volunteers and its website is hosted by the ANBG, although it remains a separate association (hence, details of its operations are not provided in the ANBG annual report). ANBG staff support continued until a few years ago – since then the current Registrar has been working on ACRA business voluntarily.

In 2015, ANPSA appointed Neil Marriott (Victoria) and Anthony O'Halloran (NSW) as its two representatives to the ACRA Board. Merren Sloan (ACT), a former ANPSA representative, was appointed by the Registrar to be the Secretary. ANPSA also supported ACRA by paying for its two Board representatives to fly to Canberra for the annual Board meeting.

In 2018, ANPSA decided at its Biennial Conference to withdraw from ACRA (see later section). When ANPSA withdrew its support, Neil Marriott (previously an ANPSA nominee) was appointed to the Board by APS Victoria. Anthony O'Halloran resigned from the Board (note that the information about ACRA membership on their website is now out of date).

ACRA reports that it is developing a new website, which its Registrar says will be under its direct control and may speed finalisation of registrations. This is planned for launch in June or July 2019.

ACRA's role

The objectives and purposes of ACRA are:

- to register, in accordance with the International Code of Nomenclature for

- Cultivated Plants, names of cultivars of Australian native plants;
- to record the names of all cultivars of Australian native plants and hybrids between Australian and exotic plants (excluding *Rhododendron* and *Orchidaceae*);
- to encourage the horticultural development of the Australian flora;
- to assess and describe cultivars submitted for registration;
- to cooperate with other organisations and individuals engaged in activities compatible with these objectives;
- to maintain a register, together with correspondence files, herbarium specimens, photographic collections and any other necessary information on cultivars or groups defined above; and
- to publish information on Australian plant cultivars.

Under the International Code for Nomenclature of Cultivated Plants (ICNCP), ACRA is the "International Registration Authority for Australian plant genera excluding those covered by other authorities". This includes all endemic genera and all predominantly Australian genera.

ACRA also registers all Australian varieties accepted by the Australian Plant Breeders Rights Office (see below). There are also some species that belong to genera that are not predominantly Australian and for which ACRA has accepted registrations e.g. for *Helichrysum*, *Syzygium* and *Microlaena*.

Australian Plant Names Index (APNI)

ACRA ensures that new cultivars registered by ACRA are listed on APNI. The APNI is the standard dataset for names for all Australian plants and includes, but is not limited to, cultivar names. APNI is recognised by Australian herbaria as the primary reference for published plant names and distinguishes names in current use, their synonyms, and names invalidly published.

APNI is online and has a search function but information needs to be entered exactly for the

search to be successful e.g. a search for *Aurea* or *Carmine Star* without the quotes gets a nil result –the quotes and/or full species name is required to find these registered cultivars.

There are hundreds of native plant names in APNI, e.g. 243 named cultivated *Anigozanthos* (compared to 27 ACRA-registered cultivars), 81 *Banksia* compared to 11 ACRA-registered; 77 *Boronia* compared to 10 ACRA-registered and 58 *Xerochrysum* compared to 8 ACRA-registered, as at June 2017. As at January 2018, there were 33 cultivated *Eremophila* in APNI.

The APNI's entries do not provide any detailed information on each plant name. Rather, it provides links to third party mentions of these names (including to ACRA and PBR entries). Links to commercial sources may be to advertisements by breeders (in which case there is little information), or to ACRA or PBR registrations (in which case information about origins is available).

Getting a cultivar registered

Applicants for registration with ACRA submit a form which contains all the information necessary to develop a profile for each variety/cultivar for registration

The form asks for the following information:

- Study group name, if from ANPS
- Name of applicant
- Details of the origin, if known, of the cultivar
- Details of the “introducer” of the cultivar (the introducer is person who distributes the cultivar through a plant nursery)
- Name requested (Genus, species and cultivar name)
- Reason for choice of name
- Origin of the cultivar, as far as this is known
- Description (foliage details, colour, height etc)
- Comparators (so the cultivar can be compared to known varieties)
- Uniformity (if maintained by seed)
- Cultivation details
- Photographs

Fresh samples large enough to create a herbarium specimen are also submitted. This specimen is lodged with the Centre for Australian National Biodiversity Research, which has allocated Herbarium space for the ACRA specimen collection.

Applications from Study Groups are accepted by ACRA without reference to the relevant Study Group leader and ACRA communicates only with the applicant in determining whether a new cultivar should be registered and what name should be used.

ACRA charges \$99 to \$110 per application to cover some of the costs of storing and processing herbarium specimens. Fees have, to date, been waived for ANPSA Study Groups. ACRA has announced that, despite ANPSA's withdrawal from the ACRA Board, it will continue to waive the application fees for Study Groups until the end of 2020.

Operation of ACRA

ACRA operates virtually and the Board meets annually, although decisions can be taken during the year.

The ACRA Board assesses the application, examines the supplied material, ensures the name has not been applied to a different cultivar, and if it meets ICNCP requirements, accepts the cultivar for registration. Business is conducted by email, and in ideal circumstances can be completed in about a month – “ideal” meaning that all the required information is submitted at the time of application, thus enabling the Board to make a determination as to whether the sample fulfils the criteria for listing.

Once accepted, a cultivar is given a registration number, and the name and description are added to the ACRA database, which is online, public and searchable. The database lists and describes all registered cultivars of Australian native plants, provides photos and describes the unique features that led to registration.

ACRA-registered Eremophila

Since its formation, ACRA has registered more than 1800 cultivars. Of these, 11 are *Eremophilas*, as follows:

- Eremophila ‘Aurea’;
- Eremophila ‘Beryl’s Blue’;
- Eremophila ‘Beryl’s Gem’;
- Eremophila ‘Beryl’s Lipstick’;
- Eremophila ‘Carmine Star’;
- Eremophila ‘Magic Carpet’;
- Eremophila ‘Meringur Midnight’;
- Eremophila ‘Nullarbor Nymph’;
- Eremophila ‘Piccaninny Dawn’;
- Eremophila ‘Pink Pantha’; and
- Eremophila ‘Summertime Blue’

Apart from the yellow ‘Aurea’ and red ‘Carmine Star’ forms of *E. maculata*, these are all believed to be hybrids. At least five more cultivar applications are currently being considered.

Formerly, registered cultivars could have the letters “cv” added after the species name, e.g. Eremophila Pink Pantha cv. This practice is no longer current.

Impacts of ACRA Registration

According to ACRA, registration confers the benefits of:

- providing fixity to the cultivar name selected by the applicant;
- recording the source and history of the cultivar;
- preserving a sample of the cultivar as a herbarium specimen and for reference; and
- providing a method for promotion of the cultivar through publication in the horticultural industry magazine (Hort Journal Australia). While details of registered cultivars are published in the Horticultural Journal as a public record,¹ the journal is not searchable; however the same information is available on the ACRA website, which can be searched.

There is no time limit on ACRA registration – once registered, a cultivar remains registered for all time. Its publicly recognised approach and

searchable online database enables Study Group members, the general public and the nursery trade to research new varieties and to standardise names given to these for general sale.

It should be noted that ACRA registration does not provide any legal rights over ownership of plant material and does not prevent third parties (i.e. people or organisations other than the applicant) from propagating or selling the cultivar.

Plant Breeders’ Rights (PBR)

There is no financial benefit for registering a cultivar through ACRA, as ACRA registration does not grant “ownership” of a cultivar in the common use of the term. To gain financial benefit, plant breeders must apply to IP Australia to gain exclusive control over the propagating material (including seed, cuttings, divisions, tissue culture) and harvested material (cut flowers, fruit, foliage) of a new plant variety under the Plant Breeders’ Rights (PBR) scheme. All new plant varieties (whether native or not) are eligible for registration under PBR, providing they maintain stable characteristics when they are bred. Once PBR registration has been awarded, it lasts for up to 25 years for trees or vines and 20 years for other species.

A PBR application costs \$345, examination fees are from \$1,000 to \$1,600, the certification fee is \$345 and annual fees are also \$345. Time limits apply throughout the registration process, bringing PBR into alignment with similar processes that apply to other Australian intellectual property.

Plants which are registered under PBR are recorded in a separate database managed by IP Australia but are not included in the ACRA cultivar list. Details of their registration, including key distinguishing features, the results of comparative trials and differences from other named varieties are published in IP Australia’s quarterly Plant Varieties Journal (PVJ). This is also not directly searchable, but IP Australia does provide an online search function at http://pericles.ipaustralia.gov.au/pbr_db/ - for each variety there is a link to a Word document that replicates what is published in PVJ.

¹ For example, Oct-17 Hort Jnl describes Eremophila ‘Beryl’s Gem’, Mar-17 describes Eremophila ‘Meringur Midnight’ and Jun-18 describes Eremophila ‘Pink Pantha’

ACRA examines all native plant PBR applications for IP Australia for a fee. In 2014 it examined and provided reports on 45 such applications.

A PBR application can be submitted by either the original breeder² of the new variety, the owner of that variety or the agent of one or both of these. Hence, commercial nurseries can license new varieties from those who have bred them, and then apply for PBR of that variety. This approach enables the original breeder or licensor to keep control over it by charging for the plant labels that accompany the propagated plants when they leave the wholesale nursery. An audit of the label sales can therefore be used to determine the licensing fee payable to the plant owner/discoverer. It takes some time, however, to recoup the PBR fees from label sales as the breeder typically receives only a few cents or tens of cents per plant.

There is a grace period, through which a breeder or licensee can sell a plant for up to a year³ and still apply for PBR rights. This grace period enables commercial growers to test the popularity of a plant before going to the expense of a PBR application.

Applications must use a “qualified person” (QP), who is an expert in a particular plant group, accredited by IP Australia to certify applications. QPs, who are horticultural industry consultants, oversee comparative growing trials and help the originator to provide evidence that the new variety is distinct, uniform and stable. This trial must be paid for by the applicant for the PBR rights. The qualified person for Eremophila (and many other native species), as listed on the PBR website, is a Mr Rodney Parsons.

The scale of operations required to recoup the various fees charged for PBR usually means that

² A breeder under the PBR Act is the person who discovers or breeds the plant – hence something discovered in the wild can be covered by PBR. The “discoverer” can be defined as the first person to file for PBR protection, as long as that person has found it directly – a person who finds out about a new variety from a third person cannot apply for PBR.

³ There are longer grace periods available for fruit trees and species sold overseas

a commercial nursery needs to be involved, hence the inclusion of commercial growers in the PBR applications granted for Eremophila above. These nurseries will have agreements with the breeder through which they gain exclusive rights to sell the plants that are protected by PBR and recoup the application costs.

Annual fees of \$345 must be paid to maintain registration. There are 5 Eremophila varieties with current PBR registration:

- *E. glabra x maculata* Ruby Red (Orange Valley Nursery)
- *E. nivea* Blue Velvet (Humphris Nursery)
- *E. nivea x E. densifolia ssp. pubiflora* Beryl’s Blue (Humphris nursery) – though note that ACRA records the same plant as a cross of *E. nivea x E. caerulea*.
- *E. glabra* Kalbarri Red (Lulfitz Investments)
- *E. glabra* EREM1 (Ozbreed Pty Ltd) (this looks like a red form of Kalbarri Carpet)

As with all intellectual property in Australia (and overseas), if a third party (i.e. someone other than the breeder or licensee) breaches ownership, it is up to the owner to pursue a remedy – so any owner of PBR’d material would need to identify the breach (that is, someone else selling the same variety), take action to prevent them, and then claim part of the profits or income from the illegal sales. This takes time and money and only larger organisations would have the necessary resources.

Growers often place the letters *pbr* after the name of a PBR registered variety to indicate their ownership or control over of the original material.

Alternatives to PBR and ACRA

Making money out of PBR depends on a system of selling labels approved by the owner/licensee. However, plant labels can be sold this way whether or not the plant has been PBR’d. Some have said that the nursery trade is moving away from PBR and is using the sale-per-label

approach to charge for new varieties, even though they have no IP rights over these. The new arrangement between the ESG and Native Plant Wholesalers (see page 2) is one such example.

When working outside both PBR and ACRA there is no need to prove that the new variety is any different from other varieties or the “type” plant. This can lead to the same plant being sold in successive years under different names, resulting in confusion amongst the general public and some frustration amongst those of us trying to sort out one variety from another. A good example of this is *E. alternifolia* x *E. maculata* which is sold as E. Wild Berry, E. Magenta Dream and E. Blue Thunder by different nurseries. These nurseries often put the quotes around the new name, in the same manner as ACRA does for a registered cultivar, further adding to confusion about the status of the name.

Why Did ANPSA Withdraw from ACRA?

The papers presented at the 2018 Biennial ANPSA conference and ANPSA papers summarising that discussion cite a number of reasons for ANPSA’s withdrawal from ACRA:

- Member regions of ANPSA had been concerned about the value of ACRA as it is currently administered for many years, and the issue has been discussed by delegates at several previous biennial meetings.
- ANPSA felt that ACRA was not serving the nursery trade nor the gardening public. It has little support within the nursery trade and is not used by them according to ANPSA’s representative on the ACRA board.
- Few cultivars are on the ACRA list for many native plant genera and few (5-15) are added each year. Most “varieties” available in retail nurseries are not listed in ACRA. The addition of <15 cultivars per year by ACRA is not keeping up with the hundreds of new “varieties” being sold to the public each year by the nursery trade.

- Significant funds were given by member regions to ACRA for a program to update the list in ACRA from published sources. The updates went into the Australian Plant Name Index (APNI) with no links to any details on the plant.⁴
- ANPSA paid significant amounts of money to fund travel of its two representatives to the annual Board meeting, which only meets for half a day.
- There was concern about the ANBG’s lack of support for ACRA. Discussions between Ben Walcott (then ANPSA President) reported at the time that the Executive Director of the Australian National Botanic Garden (Dr. Judy West) and Curator of the Australian National Herbarium (Brendan Lepschi) showed little interest in or support of ACRA. The Herbarium was willing to store the specimens produced by ACRA but Ben also reported that they said they were of little value to them. Subsequently, Judy West discussed ACRA with the directors of other botanic gardens and found variable levels of support for ACRA.

The future

Given the changes in ANPSA’s relationship with ACRA, Study Groups need to consider how (or if) they are going to register cultivars, and how to address the growing chasm between registered native plant names and those varieties released by the nursery industry. Our concern in particular is that nurseries are releasing new varieties that have no proven horticultural improvements or physical differences when compared to varieties already on the market, and are confusing the general public.

However, ACRA remains, at present, the only low- or no-cost method of registering cultivars. While it is being bypassed by the nursery industry, it is the only public database available. Given many Study Groups charge no fees,

⁴ ACRA states that these funds were to record and cross reference all published names (including name variants and synonyms) of Australian native plant cultivars – whether registered or not – in APNI.

potential removal of the fee waiver will have a negative effect on these groups if they want to register cultivars through ACRA. In my view, the absence of IP control over the ACRA cultivars is neither here nor there, given that our main aim is not to make money on these varieties.

It is tempting to suggest that Study Groups should explore whether using PBR is financially viable and can result in any net return (or at least, break-even). A Study Group would have to under-write up-front costs, including the those of commercial comparative trials.

However, as applications must be submitted by the breeder (or their commercial partner), and a breeder must be the person who discovered or bred the new cultivar, Study Groups may not legally be able to submit PBR applications. The breeder, as defined, could license the variety to the Study Group, but as we are not legal entities the licensee would need to be with ANPSA, which would then be liable for all application costs unless they, in turn, do a deal with a commercial grower prior to the PBR application. This would give ANPSA a burden it is unlikely to want to accept.

If reducing confusion is our primary aim, ESG could submit applications to ACRA to register cultivars which are already in common use from nursery industry e.g. *E. glabra* Silver Spread which is for sale but is not covered by PBR (and is likely simply to be *E. glabra* ssp. *elegans*).

This approach relies on speedy action by ACRA, which in turn means we need to be certain we have submitted all components of the application and do not delay the review process. The question is whether we can keep up with the speed of release by the many commercial nurseries growing Eremophila.

There is no clear answer here. Study Group members' views are sought on these key questions:

1. Should ESG continue to submit applications to ACRA and how (if at all) do we prioritise these?
2. Is it worth trying to gain cultivar status via ACRA for some of the more common

varieties that are sold widely – e.g. *E. maculata* x *E. racemosa* 'Fairy Floss'. I have submitted an application for this, to learn the process and see how long it takes.

3. Should ESG play a role in standardising some widely sold varieties with multiple names (e.g. *E. alternifolia* x *E. maculata*) by applying for recognition of one name through ACRA?
4. If we do act as suggested in 2 and 3 above, should we prioritise emerging varieties or existing varieties, and if the latter which ones?
5. If ACRA does not extend its fee waiver beyond 2020, should ESG use its funds to pay for ACRA cultivar registrations?
6. Should the ESG work more closely with the nursery industry on naming, and how might this be achieved?
7. How can the ESG help the general public distinguish between varieties that have new horticultural potential and those that have no new benefits?

There are more questions than answers here but in the interests of public discussion the views on these and other issues are invited from Study Group members.

Sources

ACRA: <https://www.anbg.gov.au/acra/>

PBR: <https://www.ipaustralia.gov.au/plant-breeders-rights>.

Clarification of Plant Breeding Issues Under the Plant Breeder's Rights Act 1994, <https://www.anbg.gov.au/breeders/plant-breeders-rights-act-report.pdf>

Papers submitted to ANPSA Biennial Conference in January 2018 and subsequent summary documents

Acknowledgements

Ben Walcott, Russell Wait, Ken Warnes and Paul Carmen all answered questions prior to my starting to draft this article and then provided comments on ensuing drafts. Comments on this final version have been received from Ben Walcott, Russell Wait and Ken Warnes.

ESG Field Trip – Queensland, 2020

As foreshadowed in the last newsletter, plans are afoot for an ESG Gathering in Queensland in winter 2020.

We have had provisional acceptance from Dr Rachael Fowler from the University of Melbourne to be a keynote speaker (provisional because she isn't sure where she will be working then). Rachael has completed the first major genetic analysis of *Eremophila*, and a summary of the preliminary results of her work were included in Newsletter 120 of May 2018.

Currently the plan is to commence on the evening of **Friday 31 July** in Warwick, Qld with supper and “get to know you”. There will be 3-4 formal presentations on topics of interest to members in Warwick on Saturday morning **1 August**, followed by local garden visits and an “event” dinner, also with a keynote speaker, and another night in Warwick.

On Sunday morning **2 August**, we will drive one hour north to Toowoomba, where we will visit gardens and then formally close the event at afternoon tea.

Members who need to leave after the formal close can do so. Those who want to stay on for the optional Monday morning event (**3 August**) can remain in Toowoomba overnight, or drive to Lowood, a further hour east of Toowoomba. In Lowood, on Monday morning, we will visit the Brisbane Valley Rail Trail planted with *Eremophila* (and a few other things!) by Peter Bevan. Peter has also offered to give a grafting demonstration at his nursery later in the morning.

Members can then travel on to Brisbane (another hour) to connect with airlines or trains, or drive home from Lowood.

Further details, including the budget, are being sorted out now. It is likely we will do something similar to last time, with the event fee covering supper on Friday evening, morning and afternoon teas on Saturday and Sunday, Saturday dinner and the travel and accommodation of our keynote speaker/s. Participants will be responsible for booking and paying for their own accommodation and breakfasts, Friday and

Sunday night dinners (as required), and Saturday and Sunday lunches.

This event is being organised mainly by the Queensland sub-group, with financial and administrative support from the ESG as banker. Registrations will be handled centrally through ESG.

If you want to be informed of developments, (though I will also keep people informed through this newsletter) please register your interest through the following URL:

<https://www.surveymonkey.com/r/ESG2020>

Registering interest is NOT a commitment to attend, but helps us with forward planning and with seeking views of those who might attend. It is likely that formal registrations won't be required until early 2020.

For those of you interested in music, note that Warwick has a “Jumper and Jazz” festival that runs from 18-28 July 2020, so if you want you can add that on to the front of your itinerary! This festival may also mean it is wise to book your accommodation early, if you absolutely plan to attend.

ANPSA Biennial Conference, Albany, 2019

Lyndal Thorburn

The ANPSA Biennial Conference is being held a mere 18 months after the last one in Tassie in January 2018. The conference is in Albany in WA at the end of September and early October 2019.

I will be attending the conference as Study Group leader and also as a delegate at the ANPSA meeting (pre-conference) for ANPS Canberra (which is paying for travel).

I will be speaking for 15 minutes under the Grow theme, with a bevy of other Study Group leaders. Bevan Buirchell, Study Group member, taxonomist-extraordinaire and keynote speaker at our own Gathering in September 2017, will also be speaking.

For more information on the program see the conference website, [Blooming Biodiversity](#)

<https://meetingmasters.eventsair.com/QuickEventWebsitePortal/bloomingbiodiversity/eventinfo>

I have also been asked to put up a display in the conference hall. If any WA members (or visitors from other States) are interested in assisting with this (beforehand, or on the day) please let me know.

Know your Eremophila – *E. glabra* Roseworthy

Ken Warnes

Historic origins which live on. The original 'Roseworthy' plant, which has now gone due to road clearance, was about 2km North West of the outskirts of Gawler on the Roseworthy College Road.

Roseworthy College is an old Agricultural live-in College and is now part of Adelaide University. It is still a pre-eminent Institution in Ag studies Australia wide, with Oenology and Veterinary Degrees as well. It was also the centre of wheat breeding in SA. It is approx. 6km west of Roseworthy town, which is north of Gawler on The Main North Road or Horrocks Highway as it is now named.

So one way or another both Gawler and Roseworthy have been used for the same plant, though it is nowhere near Roseworthy town.



The plant itself measured about 5m x 2m and forms a dense carpet. I spotted it one April when everything else was dry and brown and it stood out among the roadside growth. Cuttings took readily which was fortunate. That was

many years ago and I think I called it Gawler but the government nursery, when they stocked, it called it Roseworthy, hence the two names.

Be assured, it is the same plant. The adjoining land was broken up for Rural Living blocks and the developer decided to clean up the messy roadside, taking what we believed to be the only natural plant in the process.

Since then, I have been made aware of another *E. glabra* immediately west of Gawler which, while having large leaves and more open growth, is equally prostrate. A further one was known a few kilometres further north-west, but this was burnt in the Pinery Fire. However, last time I looked I detected a small patch of regrowth, so I hope that it has survived. It was virtually identical to the first plant I found.

All three are in my plantation but as far as I know only the original is in the Trade. It is a superb ground cover, somewhat slow growing perhaps, but very dense and with masses of small red flowers in Spring. There are good pics of it in *Eremophilas - Changing Gardens for a Changing Climate* – pp 234, 235. It's great watching the honey-eaters walking all over their table while they work the flowers.

To the question of remnant?, sub-species?, whatever. We know of only those three plants having existed, perhaps two surviving *in situ*. Could it qualify as a sub-species? That would be for others to decide, it is certainly a very distinctive form.

But here's a curly one that skews things up a bit. Tom Loffler at Waikerie had a good specimen which had a fire go through it. The subsequent growth from the crown was of a totally different *E. glabra* form, much more like the Eyre Peninsula coastal forms, which would equate to the latitude of Gawler. So, he had a 2-in-1 plant, part Gawler, part another form. Is this another example like the chimeras of different bark layers producing differing plants? And if that could happen are the "Gawler" plants all aberrations caused by fire? There's something to think about eh! So the jury stays out on where they fit into the *glabra* complex but I wouldn't hold my breath waiting for sub-specific status.

New cultivar – E. Meringur Isaac

E. Meringur Isaac, detailed on page 5, has been registered with ACRA (details are not yet on their website). Below are details of the registration:

Label: *Eremophila* ‘Meringur Isaac’

ACRA Registration 1652

Family: Scrophulariaceae

Origin: Selection made by Russell Wait, Riddell’s Creek, Victoria.

Characteristics: Dense shrub, 5m (h) x 3m (w), leaves: green, flowers: violet, 35mm x 30mm, Aug-Oct. Colour Coding RHS Colour Chart 1995:

Flowers: Violet Purple Group 86b
Leaves (upper surface): Green Group 137b.
Eremophila bignoniiflora x *E. polyclada*

Cultural notes: *Eremophila* ‘Meringur Isaac’ responds well to pruning which makes it an attractive dense shrub with spectacular flowering displays. It has been propagated vegetatively through several generations and has proven hardy in many districts.

Propagation: Cuttings and can also be grafted onto *Myoporum*

Uses: Suitable for use as a feature plant

Availability: *Eremophila* ‘Meringur Isaac’ is available from Russell Wait who can be contacted by email: russwait@bigpond.com

Eremophilas for windbreaks

I asked in the last newsletter for ideas about *Eremophilas* as windbreaks. We know that many are brittle and hence susceptible to wind damage. However, the article on *E. polyclada* and its hybrid Big Poly recommends both of these as possible windbreaks.

Phil James has now written to suggest that those with generally fine leaves and dense habit are suitable as windbreaks, and suggests these might include *E. oppositifolia* ssp *angustifolia*, *E. rostrata*, *E. youngii* and even some of the larger *E. maculata* hybrids.

Are there any other suggestions from members?

The Eremophila Phytochemical Database

Dane Lyddiard & Ben Greatrex

In the February 2019 ESG newsletter, we discussed an *Eremophila* phytochemical survey being undertaken at the University of New England (Armidale, NSW), and the associated online database: www.erechem.com.



In this survey, small leaf samples are extracted with methanol and the more volatile compounds are identified using gas chromatography coupled with mass spectrometry (GC/MS). This gives a fingerprint for each individual chemical in the extract). The resulting data is then reviewed, annotated and placed in the online database.

After discussing this work, we received an overwhelming number of offers to assist us, and thanks to ESG members now have almost 200 additional samples for analyses. We have prepared the samples for GC/MS analysis and will begin that process shortly. We would like to say a big thank you to those who helped, the samples you provided will go a long way to improve the quality of the database and brings the total number of samples to over 400.

We have also been able to obtain larger samples (in terms of leaf volume) of poorly studied *Eremophila* through your assistance. This will allow one of our master’s students to look at the chemistry of these plants in greater depth. We would like to investigate the whole genus in more depth (especially looking for more novel

compounds) but recognise the enormity of this undertaking. We do have a few students willing to undertake some of the required research later this year, so we will endeavour to keep you informed on that research and progress on the database.

As before, you can contribute by first emailing Dane (dlyddia2@une.edu.au) with the names of the species you have. If suitable, he will post you a specimen collection kit which only requires a few leaves at most (usually 1 is sufficient) to be placed in a vial with solvent (which will be provided) and sent back to the University of New England for analysis.

Website Image Database

158 species

Thanks to those who have again provided photos for our image database – we have added photos of 18 new species photos since the last newsletter! We are up to M (and only have a few gaps before that). Current gaps up to M in the image database are of these species:

- hispida
- homoplastica
- linsmithii
- macgillivrayi (all-pink forms only)
- magnifica
- malacoides
- margarethae
- metallicorum
- micrantha
- microtheca (the real one!)
- mitchellii

In addition, I am seeking good, recent photos of the following ACRA-registered cultivars:

- ‘Aurea’
- ‘Beryl’s Lipstick’
- ‘Carmine Star’
- ‘Magic Carpet’
- ‘Nullarbor Nymph’

Where these are hybrids, they will be shown on the pages of both parent species. Note – we

have photos of ‘Beryl’s Blue’, ‘Beryl’s Gem’, ‘Meringur Midnight’, ‘Pink Pantha’, ‘Picaninny Dawn’ and ‘Summertime Blue’ from previous newsletters and these will be uploaded during May.

Our wonderful web manager, Brian Walters, has also started on hyperlinking the photos of plants that have been “feature species” with the relevant newsletter elsewhere on the site. At the moment this will link the photo with the single species, but when we start uploading hybrids we will do the hybrids of the feature species first and will then link to both (or all three!) parent plants. This will mean that people looking up a flower can find the relevant newsletter and read more, and also discover what else the study group offers.

Finding Eremophila Books

Phil James has written to say that the WA Eremophila book may still be available through the WA wildflower Society or he may be able to supply a few.

From Your Letters

John Elton, (NSW): Just thought I'd give the group some feedback on progress of growing Eremophilas on the South Coast. I don't know enough as yet to comment on much more than how the plants are growing.

I'm 2 hours south of Sydney and about 1km from the beach. My property was formerly dairy land - the soil is quite heavy but seems to drain well enough. I'm growing the Eremophilas in amongst other natives – mainly grevilleas. Most (about 40) were planted as tube stock in October and the results have been stunning. I'm finding Eremophilas to be incredibly rewarding. Most have put on remarkable growth and I've lost only one – an *E. spectabilis*. This, despite a very humid summer here.

E. nivea, *E. christophorii* (mauve and white and never out of flower), numerous *E. glabra* and *E. maculata*, *E. oppositifolia*, *E. santalina*, *E. Summertime Blue*, *E. Pink Pantha*, *E. Beryl's Blue*, *E. Beryl's Gem* are already 0.5-1 metre high. *E. macdonnelli* is 1.5 metres in 6 months!!

The spread on *E. biserrata*, *E. Kalbarri Carpet*, *E. subteretifolia*, and a red and purple *E. glabra* is 0.5m plus. *E. muelleriana*, *E. georgei*, *E. mirabilis*, *E. compacta*, *E. maitlandii*, *E. delisseri*, *E. lehmanniana*, *E. labrosa*, *E. abietina*, *E. gilessi*, *E. punicea* and *E. glandulifera* are showing good vigour. Most have had some flowers.

I'm also trialling a few as understory plants in semi shade and these are healthy enough but growing comparatively slowly. Coincidentally, the soil in these spots is probably the only dry area in the garden. I wonder if they would grow better with more moisture? Certainly worth a try I think, although it's probably the semi- shade that holding them back.

So it seems that high rainfall and high humidity are no impediments to growing good looking Eremophilas here on the South Coast. I put this down to a few things. In particular we have great air movement – there is rarely a day without a breeze; and planting most above the natural ground level has probably helped. I compulsively tip prune on a weekly basis and this has made the plants bushy and encouraged vigour.

Many are grafted, although I also need to cut the rootstock back at least every 2 weeks (Monaro Marvel, I think). I'm not sure what rootstock the plants I bought from Russell Wait are on, but they have not suckered.

I also have a few that Ray Brown has grafted using *E. bignoniiflora* and *M. bateae* and these have not suckered to date. The soil here rarely dries out, but these predominately dry area plants don't seem to mind; in fact, quite the opposite. To date bugs/diseases have not been found on any plant.

Cutting are striking well, but as for grafting – not so good apart from *E. christophorii*.

I'm also involved in planting Eremophilas at the Illawarra Grevillea Park – an hour north (50 or so to date). The conditions in the park are harsher than my property – drier and more impoverished soil. While the plants are not as vigorous, they are also doing okay and hopefully

when people see them at our open days they will be encouraged to try a few.

Below (and over) are photos that will give you an idea of the vigour the plants are showing.

E. flaccida ssp. attenuata



E. Summertime Blue



E. glabra



E. delisseri



E. christophorii



E. biserrata



E. muelleriana



Joan Hubbard (Qld): Jan Glazebrook asked me to send you this photo from our Eremophila trip last year. It is of *E. tetraptera* taken at Munduran Station in western Queensland we believe it could be the original specimen recorded. It is a very old shrub.



Phil James (WA): Just on *E. glabra* 'Bev Rice', this is also sold as *E. glabra* compact and *E. glabra* Silver Ball (Bushland flora). Tony Clark,

who I visited recently, advised he thought it was collected at Kalbarri, however there are many sites around Gascoyne junction WA and locations where a similar form grows.

Below is a pic of *E. glabra* Lime Gold. This was sourced from around the Coastal areas of Mandurah Rockingham, City Beach close to Perth. It is sold by Benara nurseries to retail markets both in WA and in the Eastern States.



In relation to *E. abietina ssp ciliata*, on our field trips we discovered many *E. abietina* hybrids and but we have not located the pink form in the wild. Tarrawood Nursery has previously sold the pink form as a grafted plant.

Benara Nurseries and others sell *E. maculata* Pink mini all over Australia. Interestingly, it and *E. maculata* Pink Passion and Magic Blush were initially sourced from Mannum Nursery some 7-8 years ago. Ray Isacson also had a similar *E. maculata* to Magic Blush. I have both forms and the Ray Isaacson one was never commercialised or sold by retailers in WA. Actually, the *E. maculata* Pink Passion may well have some *E. maculata ssp brevifolia*.

There are two to three forms of Leucopyllums in Australia that I am aware of. Without any study they, at this moment, seem to be classified as *L. frutescens*. The form sold as Lavender Lights is marketed in the Eastern States. It has a greenish – grey leaf and a rather large purple flower. In

WA it grows to about 1.5m x 1.2m (photo from Top Tropicals website).



Another form is available here in Perth, and I have actually seen it growing in the streetscape in Broome, WA . Again, it grows to about 1.5mx 1.2m with grey leathery leaves and a large pink flower



A third form is a very compact shrub with small roundish leaves and very small purple flower which only last for a day or so. It is a good form for that variance of colour foliage in gardens etc.. I purchased all three forms in South Australia.



Jocelyn Lindner (Vic): Congratulations on an excellent Newsletter. I believe that Frank's Eremophilas are more widespread than just around Walpeup. When he left here in 2006, he potted up many into milk cartons & took them up to Crows Nest and propagated from them. I have just been back through his old letters as I seemed to remember him saying that he had taken them to market days. In 2009 he wrote I had two days at The Crows Nest market. I have no idea what sold and they could have gone anywhere. He also mentioned Walpy Val – Daughter Val at Meringandan – has a row of Walpy Val down driveway look great. Meringandan is 19km NNW of Toowoomba. It would be interesting to know if any members purchased any? When I catch up with Merle Pole I will see if she knows of where else he may have taken them.

Bev Rice (SA): Another great newsletter, grateful thanks for all your effort as a quality newsletter like you produce does not just happen, so again, many thanks for such wonderful newsletters, I am sure it must be one of the very best published by any Study Group.

As I have just scanned through your latest newsletter and noted the article about the *Texas Sage* bush. I first saw it in our daughter's garden in Galveston, Texas. Growing in pure beach sand as Galveston Island is just that, a Sand

Island. I saw it a few years later in San Antonio in Texas, growing in public gardens [growing in loamy soil] and looking magnificent. This *Leucophyllum frutescens* was referred to as *Texas Sage* and grows extremely well in Texas under various garden conditions.

Apparently there are various forms of this plant and the flower colour various from an intense purple to a mauve/lilac. Some people called it Mexican sage and said it was a native to Mexico, which is partially correct. Easily mistaken for an Eremophila and very floriferous and eye catching. I only saw it flowering in Summertime in the high humidity of Galveston, Texas [very sub-tropical] to the drier climate in San Antonio, more Mediterranean type climate. Just a bit more trivia!



Dane Lyddiard (NSW): Thanks for including us in the newsletter Lyndal (and for doing such a great job with it). I'm also really keen to now keep my eye out about misidentifications of nursery stock in future issues! Phil James has also contacted me about such concerns, it will be a hard one to navigate from my end but important for me to consider.

Chris and Ross Reddick (Qld) (new members): We have attended many ESG events (as visitors/guests) over the last couple of years and wish to formalise our attendance.

We had an enjoyable excursion with Ken Warnes, Hans and Stefani Griesser from SA University, looking for Eremophilas, in a very drought-stricken west Qld last Spring and surprisingly found 25 of the 31 that were listed on the tour-leader's manifesto.

We love emu bush, have tried to propagate specimens from emu dung from another trip

(without success), but we have a beautiful hobby nursery to provide specimens for our garden. We have several species growing in our garden & that of our son's, in coastal northern NSW

Ken Warnes (SA):

1. (following on from the discussion about *E. glabra* Bev Rice in the last Newsletter – this is an edited form of a discussion between Ken and Phil James in WA – Phil runs the Orange Valley Nursery)

I think we can safely agree that “Brice” is not “Lime Gold”, much as Bev would like it to be. She is highly embarrassed to have her name associated with Tony’s collection and any means of shedding the connection would make her happy. I have heard the name “Silver Ball”, perhaps we should promote its use, after making sure it is the correct plant.

It’s of interest that Tony⁵ suggested Kalbarri to you; to me he has always said that he followed roads around the eastern side of the cultivated areas, so has assumed that he picked it up along there somewhere. This of course puts it in *E. glabra ssp elegans* territory. But some of these early collections were very poorly documented, and even now the records are probably not being very well matched up against more recent collections. I have no idea if he travelled as far north as Gascoyne Junction but the basic form suggests woodland or sub-coastal rather than savannah. But I must admit to being relieved when the Bev Rice answer came up because I’m blown if I could find Brice on any of my maps of WA.

A case in point of these suspect early collections is the ground-hugging, grey leaved, green flowered *E. glabra* which we always were told came from Lake Johnstone. Now, everyone from WA says “No, No, it comes from York”. Mine, reputedly from York, has red stamens and could be said to have a thicker leaf and denser growth. I strongly suspect that there are two similar forms of *E. glabra* from very different conditions and separated by a large distance. But until someone again collects the original from

Lake Johnstone (without the red stamens) there must remain two schools of thought for me.⁶

It’s not bragging, it’s a statement of fact, that I have been collecting these things for over 50 years (and have plants that are now that old) and who knows what chance variations were brought back in the early days. The disputed “Brice” and “Lake Johnstone” are just two examples. We grew a plant very similar to “Mingenew Gold” for at least 30 years before the current plant was named by the trade and it appears to me that the nursery plant is of more a golden-yellow with broader leaves than the clear bright yellow of the original with narrow leaves. “Bellala Gold” does better than “Lime Gold”, perhaps because it comes from a very different area (Lime Gold is from Mandurah south of Perth, a high rainfall area with coastal, white sand).

“Lime Gold” doesn’t do very well here, based on a single plant, admittedly. Perhaps it grows naturally on white sands and doesn’t like my clay-loam. We have, over the years, had several colours of similar plants with yellow, orange or red flowers, all said to have come from coasts near Perth. One of these, with strongly orange flowers, was said to come from Geraldton and was called as such in the early days.

“Mini Pink”. OK, I accept that the song had nothing to do with it (see page 24), just shows the way my mind works. But if it’s the plant I think it is, it doesn’t look like a WA *E. maculata*. Wonder where it came from? I have a seedling not unlike it, but then I have planted *E. maculata* from all over Australia together, and as Bob Chinnock one said in exasperation “Ken you’re making an awful mess of maculata”.

I have a plant of what I bought from a Hardware Chain as “Pink Passion” with your label on it. I’ve never heard of “Magic Blush”. Why can’t the wholesalers agree on a name and stick with it? It infuriates me as you well know.

The Ray Isaacson plant, let’s call it Ray’s maculata, is a garden seedling – an undetermined *E. maculata* crossed with the well known *E. maculata ssp brevifolia* selection that

⁵ Tony Clark, formerly of Nellies Nursery, Mannum SA

⁶ Phil has since confirmed he has collected superficially similar plants from both York and Lake Johnstone.

has been around for years. (Of course there's a rival plant around to compete with that one just because someone thought they could do better – and they haven't).

Brenton Tucker made a label calling it *E. maculata compacta* and received multiple metaphorical bullets from me. It's not particularly compact and the chances of confusing the name with *E. compacta* were not worth contemplating. So has it made its way west as "Magic Blush" using the name coined by Tony?

re *Leucophyllum*: I was given the purple by Tony as *L. zygophyllum*. Very tough, but it only flowers for about 2 days. A mass of purple and then nothing. Perhaps in different conditions it might have multiple responsive flowerings following rain. I have been told that it is the famed "Purple Sage" of the American west. And I see that it has collected a cultivar name along the way, imagine that! *L. frutescens* is more widely grown, there's a whole walk of it in the Adelaide Botanic Gardens. The smaller one I don't know. I believe it is quite a small genus, single figures of species. I presume Tony had them because of his exchanges with Ron Gass in Salt Lake City, but that's only a presumption. We tried to send some *Eremophila* cuttings over last year but they were confiscated on arrival despite Tony's best efforts to follow all protocols.

2. (April) I was a bit concerned at a Nursery Association Sale today when I was asked about a prostrate, lush leaved *E. glabra* reported as having yellow flowers which came from Brian (Freeman).⁷ Apparently he thought it may have come from Peter Lang, and accordingly it had a printed label as "Mildura Yellow" (or Gold), I'm not certain which. About the only thing I can be sure of is while Peter Lang might have grown and sold this form it didn't originate in Mildura, so it's the type of misleading naming that we are

having to contend with. Any info so we can stamp out this "Mildura Yellow" nonsense.⁸

My northern expedition with Russell (Wait) had to be aborted because of Cyclone Trevor's capricious behaviour. We realised by the first night that "Trevor" had changed course and we were in trouble. By the time we reached Cunnamulla we had 100-200 mm of rain reported in front of us and most roads closed so after two nights we just turned around and came on home.

We did venture as far north as Yanna RS and poked around in the vain hope of stumbling on "Yanna Road" or a version thereof. Plenty of *E. gilesii* but not an *E. latrobei* in sight. Mind you, the goats might have wiped out any *E. latrobei*, but the country just didn't look right until we headed out on the road due East where we did come to rises with mulga which is where we find green-leaved *E. latrobei* in SA.

What we did find was a large population of heavily grazed *E. goodwinii* and in the trash piles we found germinating *Eremophila* seedlings 2 days after possibly 35-50 mm of rain judging on what they had at Charleville. That's taking your chance at life if ever I've seen it and shows what must be happening over vast areas. Till the goats find them, they are everywhere and in huge numbers.

The *E. goodwinii* were closer to the *E. latrobei* country so it raises the question, is "Yanna Road" a *goodwinii-latrobei* rather than *gilesii-latrobei* as we have thought. And yes, I confess to being the one who has pushed that theory as being the most likely combination, never suspecting that *E. goodwinii* grew anywhere near there. While *E. goodwinii* and *E. gilesii* are superficially similar they are in no way related. We know that *E. goodwinii* hybridises in central Australia but we have no suspected *E. gilesii* hybrids apart from in WA.

Lance Cockburn from "Brookvale Park" is believed to have collected the original plant but which road was he on? We had never suspected that it was the road to the east, but studying the

⁷ It is thought that Brian got his material from Brenton Tucker, in which case the original collection is likely to have been by Russell Wait from south of Ravensthorpe.

⁸ Similar to the editor discovering that *E. maculata* bright yellow form is being sold as Wimmera Gold!!

maps while there it seemed quite possible that he came from the east as it is a through-road even though it winds about a bit. There's little likelihood of the original plant still living but it's one of those mysteries we would love to clear up

We also found a single *E. divaricata* ssp. *callewata* just north of Bourke, germinating seeds off *E. goodwinii* 2 days after heavy rain (now that's what I call taking advantage of the conditions) and a chance meeting with a seniors couple at Hillston on our way back.

It's fair to say that I was rather nonplussed when, after I had offered to assist in raising their annexe, the woman said, quite out of nowhere, "Do you know anything about Eremophilas?" I said I would answer that question after they gave me their names (just in case I had missed something). Graham and Kylie Carter meant nothing to me, so I said something along the lines that I was probably the person most responsible for the current interest in them, and that my mate probably was the most knowledgeable person alive. Perhaps we could meet after tea in the camp Kitchen to further the discussion?

It turns out that they had spent their working lives in the pastoral zone in WA and now lived 30 km from Ron Dadds. They grew 32 species themselves. So we won't know just how valuable that chance meeting will be until Russell is back in WA again. But what an amazing coincidence and what prompted them to ask the question of me? And if we had been able to go on to Winton or home via Eulo and Hungerford we would never have met.

Something of interest, and no little concern, which I will include here. I was recently shown a picture of an Eremophila taken north of Cook RS which I immediately identified as *E. delisseri*. But in answer to my question just how the patch was going, they were emphatic that there was only a single plant. When Russell and I were there in 2003 there were 7 or 8 plants on either side of the track and very noticeable. If there were more I'm sure we would have seen them. Camels had been knocking them about and I can only assume that most had been killed over a period of time.

So does that mean that there may be only a single wild plant in existence, certainly only one which is readily accessible. If ever there was an example of the importance of our combined efforts this is surely it and shows how valuable our cultivated specimens are. Treasure them and increase their numbers wherever possible. The only other explanation is that they were on a different track but this seems unlikely in that country.

Another subject which may bear some discussion: I have noticed an increasing difficulty in replacing plants which have died by planting back in the same spot, even when digging over a reasonably wide area to loosen the soil. Arid Lands (*in Port Augusta*) are having the same trouble and have resorted to completely reworking the soil with multiple additives to improve soil health. Are we seeing signs of antagonism, a build-up of pathogens or a form of allelopathy making its presence known? It might be worth finding out if others are noticing the same problem.

Parafilm

Member Ross McDonald has donated a box of Parafilm, which is similar to but slightly heavier than Nescofilm and not quite as stretchy. Same deal - \$2 per metre, plus \$1 postage, please deposit into the ESG account and email the editor.

Next Newsletter themes

Feature species for the next newsletter is *Eremophila drummondii* – please send your comments and pics to the editor (I know of one hybrid, with *E. nivea* – are there any more out there?)

Corrigenda

From Hans Griesser: Your explanation of the origin of the Minnie Pink Eremophila in the latest newsletter has, alas, a major flaw: that pop song was about Lily the Pink !

Ken says "alas, he is right – it must all be to do with the size of the bush and the flower".

What a pity! It was such a good story!!

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 or 02 6297 2437 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) ([jlffountain5 \(at\) gmail.com](mailto:jlffountain5@gmail.com))

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NEXT NEWSLETTER OCT-NOV 2019

FOR SALE

DVDs of all the formal presentations from the September 2017 SA field trip

To purchase, deposit \$12 in the Study Group account and email the Editor with your details