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Australian Native Plants Society (Australia) (ANPSA)

Eremophila Study Group Newsletter No. 137

December 2022

Eremophila gilesii* ssp. *variabilis (pic Russell Wait**)**

Contents

Letter from the Editor

Greetings Eremophila lovers.

Well, *la Nina* is the gift that keeps on giving (NOT!), isn't it!! Rain and more rain for those of us in the eastern States – as always, we feel for those suffering floods, and wish them and we hope their gardens recover once the waters recede. As editor of a newsletter about a species that loves dry places, it is interesting that we will soon bereporting on the long term effects of total inundation.

It is good to move on after months of focus on the Biennial Conference in Kiama. This newsletter include lots of reports from members – new gardens (page 9), established gardens (page 11) and some interesting speculation on hybrids (pages 10 and 13). And there are some new web resources, all of which would benefit from our help (pages 15, 16 and 21).

I have also renamed "From your Letters" to "Snippets", given most info arrives by email these days!

And, I wish Ken Warnes a quick recovery from his hip replacement op!

Eremophilas in the News

It was pleasing to see SG stalwart Russell Wait on Gardening Australia on 18 November. Russell showed off his 400 Eremophilas at Riddells Creek. He says their 5 minute took five hours of filming! He has also been getting some local press for his book, *Growing Eremophila* – the latest being in the Swan Hill Guardian.

Peter Bevan of Pete's Hobby Nursery and Lockyer Valley Rail Trail fame has been working with scientists from Griffith University in a drug discovery project. Peter has planted 100 Eremophila in order to provide larger numbers of plants for chemical analysis by the university. The Lockyer and Somerset Independent covered it on 26 October 2022.

A video of my Biennial conference talk (compared to the edited written summary contained in the previous Newsletter) can be viewed at https://youtu.be/pU3Z-TJxFz4.

What's New in the Study Group

We were sorry to be notified of the deaths of two long-time Queensland members recently: Joan Hubbard and Arnold Rieck. Our sympathies to their families.

Arnold, from Ipswich, had been a member since 1989. He had a public Walkway named after him in 2019, to honour his involvement in replanting Rosewood Scrub (now Masons Gully). His wife Joyce (also pictured below), said he was "spruiking the advantages of Eremophila to the very end."

Joan had been ill for some weeks but died of a heart attack in September. She joined the Study Group in 2009 and lived in Chinchilla. Joan and her husband Len are pictured below, receiving a community service award in 2018. Noreen Baxter noted that she was "one of those people that everyone enjoyed having around".

We hear that Noreen Baxter herself, of Queensland organisational fame, is also ill and we wish her a speedy recovery as well.

Feature species – *Eremophila gilesii*

Lyndal Thorburn, Ken Warnes and Russell Wait.

Description

Eremophila gilesii is a low spreading or erect shrub that usually ranges from 0.15m to 0.8m tall with alternate leaves. It is found naturally across the drier regions of all mainland States except Victoria, with its ubiquitous presence in western Queensland also earning it the common name of Charleville Turkey Bush. It is also called the Green Turkey Bush and one South Australian government publication has it listed as the Hairy-fruit Emu Bush (a common name not known to any of the authors).

Its scientific name honours the explorer Ernest Giles, who first collected it. The Type form was collected by Giles in the "Macdonnell Ranges" and was named by von Mueller. This in itself is a bit strange because in general terms it is always on open plains country, in clay loams or skeletal soils, often under mulga or Eucalyptus. It is possible that Macdonnell Ranges was a generalised term for a large un-mapped area, and it is possible that the Type form was collected in more typical country than the listed location might imply.

Subspecies

There are two subspecies – *E. gilesii* ssp. *gilesii* and *E. gilesii* ssp. *variabilis.*

E. gilesii ssp. *gilesii* varies in its ploidy – the number of chromosomes per cell – which varies according to location. Nothing is known about ploidy in *E. gilesii* ssp. *variabilis.* Chinnock speculates that there are likely to be further species that could be separated out because of these differences.

E. gilesii ssp. *gilesii*

This sub-species is found in Queensland and NSW in one population. A second population starts from halfway across SA and the NT and then extends further west into Western Australia, almost overlapping with populations of *E. gilesii* ssp. *variabilis* (see page 5).

Populations of *E. gilesii* ssp. *gilesii* in Queensland and NSW are tetraploid (that is, they have twice the normal number of chromosomes) and they look very similar to each other across their range.

The most southerly spot Ken knows to collect the species is at the T-junction 1km south of Cadney Homestead Roadhouse. Chinnock lists locations SW of Coober Pedy, but these would be inaccessible to most travellers. Ken hasn't seen it further West than towards the southern end of the Sandy Blight Junction Road.

Given the Type form was collected in Central Australia, it probably represents the low, rounded, fine-leaved form which is found form there through to Western Australia where eventually, as you head West, South Chinnock's ssp. *variabilis* takes over.

In both populations of *E. gilesii* ssp. *gilesii*, however, the stalk that holds the flower (pedicel) is flattened, broad and is winged in the distal part (seen in the pic below by Alice Newton). The long tapering pedicel is distinctly flattened under the calyx, which generally has 3 wider and 2 narrower sepals.

The leaves are long and thin, with the length to breadth ratio anywhere from 25:1 to 50:1. Leaves normally have smooth edges or may be lightly serrated (particularly those from Central Australia). Leaves are 20-55mm long. Resin makes the stems and branches sticky.

The shrub itself is multi-branched and is normally 0.4m-0.8m tall. From a distance the shrubs are distinctive and look like upside down triangles (pic below – Tom Jordan here is collecting fruit along roadside for our Geoff

Simmons-funded project with the University of Queensland).

There are 1-2 flowers per axil and these are usually purple or mauve (pics below, the first one by Brian Freeman). They flowers are insect pollinated.

The fruit is relatively large, is fleshy when green and has a membranous hairy skin when dry. Fruit can have up to 12 seeds in the 4 cells and Ken once had 7 seedlings emerge from a single fruit (after waiting for 7 years for a thunderstorm to trigger a germination).

In South-Western Qld, roughly from Windorah to Jundah and spreading further East, there is a form with longer, more fleshy leaves covered in grey hairs and with larger, lighter coloured flowers. It is very different and could well be considered as a sub-species when in its strongest forms. Ray Isaacson collected one on his first Qld trip and many of us still grow this particular plant with its large blue flowers (pic below Ken Warnes).

Further East towards Charleville the leaves are shorter and greener with darker flowers. Ken considers the Windorah and Charleville forms to be quite distinct and would argue for a further subspecies to be recognised because of these differences. However, he also accepts these forms merge at the extension of their respective ranges.

Chinnock also notes that this subspecies is "a troublesome weed in some areas of Queensland and NSW" (part of the reason is that it is unpalatable to stock[1]).

While we have been unable to find it listed on any official Queensland weed lists, there are reports that it can form stands of up to 12,000 plants per hectare. The weediness is of such a concern that biological control has been tried (unsuccessfully) with two species of wingless grasshopper. At present, the Central West Local Land Service recommends managing *E. gilesii* through ploughing and chaining (that is, putting

[1] Government of South Australia (2020): *Native Vegetation Council Rangelands Assessment Manual*, Appendix G, page 60

a chain between two tractors and dragging it along the ground between them).[2]

Sixty-four percent of the 11 respondents to the survey grew this subspecies.

E. gilesii ssp. *variabilis*

As its name implies, *E. gilesii* ssp. *variabilis* has variable leaves. It is found only in Western Australia. It is distinguished from *E. gilesii* ssp. *gilesii* by the absence of wings on the pedicel and the shorter, fatter leaves (length to breadth ratio of only 10-20:1 and total length of only 9-37mm) (see pic on the cover).

While Chinnock notes that this subspecies can reach 1.2m, it generally stays low or almost prostrate at around 0.2m tall (example of pink form below, pic Russell Wait). In the wild, it is found in *Hakea* or *Acacia* shrubland, often in association with *Senna sp*. Chromosome number is unknown. There is only one flower per axil.

Generally speaking, this subspecies is easier to grow than *E. gilesii* ssp. *gilesii.* Fifty-five percent of the 11 respondents to the survey grew this subspecies.

In the more northerly parts of WA Chinnock extracted *Eremophila lanceolata* which previously would have most likely been included under *E. gilesii*.

Colour forms

As already noted, *E. gilesii* is usually mauve or purple, but it does come in pink and (possibly) white forms. Below is an example of the pink form, in *E. gilesii* ssp. *variabilis* (pic Russell Wait).

From the survey, 73% of respondents had plants with purple or violet flowers, 45% with mauve or lilac flowers, 36% with pink flowers and 27% with white flowers. Examples of the pink and white flowered forms are shown below.

Horticulture

E. gilesii is not commonly found in cultivation. However, Boschen/Goods/Wait report that it prefers well-drained light to medium soil if it is on its own roots. Two thirds of survey respondents report they have fine-grained soils (e.g. silts, loams or clays) and the remainder have coarse-grained soils (e.g. sands or gravels).

E. gilesii will grow in full sun (reported by 55% of respondents) or filtered shade (none of our respondents). Those respondents whose plants did not get full sun reported that their plants had full sun for half the day.

[2] Local Land Services (2014): *Managing Native Scrub to Rehabilitate Native Pastures and Open Woodlands – A Best Management Practice Guide for the Central Western Region*, page 37

Those members who grow the plant have it in the ground, and 27% also grow it in pots.

E. gilesii flowers from August to December and summer rains may bring on additional flush of flowers. As can be seen in the table below, members reported prolific flowering in spring, with sparse flowering in all other seasons.

Season	Prolific	Sparse	None
Summer	1	5	0
Autumn	1	5	1
Winter	0	5	1
Spring	8	1	0

Numbers = no. of respondents

Drought, rain, frost and wind

E. gilesii is drought tolerant but like many of our Eremophilas it does appreciate additional water during long, dry periods.

Our survey respondents were growing it in regions ranging from 200mm rain p.a. all the way up to over 1000mm p.a., with the majority in between 200mm and 600mm. In wetter areas, and after heavy rain, damping off of either leaf tips or lower leaves was reported by 45% of respondents.

Respondents lived in areas with some frost, but not at the extremes – 55% reported living in areas where the lowest temperature was 0 degrees to 4.9 degrees, and the balance live in areas where the lowest temperature was minus 5 degrees up to 0.1 degree.

Seventy-three percent of respondents reported no damage from frosts and the remainder reported minor tip burn. Some respondents thought it was marginal in frosty areas. So, that means it is frost hardy to minus 5, but we don't have enough information to be definitive about colder areas.

The vast majority of respondents also reported no wind damage, with only one respondent reporting that severe winds broke branches at the base of the plant or the trunk, or the plant became loose in the ground.

Longevity

E. gilesii appears to live for about 10 years in the garden. Three respondents reported plants at 10 years old, two had a 5–6-year-old plants, and the lants belonging to the remainder were younger (which could of course mean they just had young plants!).

Pruning

E. gilesii responds to light pruning, which helps to keep it compact. Thirty-six percent of respondents did this, and only one person reported a heavier regime – reducing the plant by one-third after flowering. The remainder, 45% of respondents, did no pruning.

Boschen/Goods/Wait report that in cold wet climates *E. gilesii* may suffer from fungal attack in winter , in which case dead tips and branches should be pruned.

Pests

According to survey respondents, pests don't' seem to be a problem. The only pest, reported by 36% of respondents were sucking insects such as mites, aphids and other sapsuckers.

Propagation

E. gilesii can be propagated from cuttings, but 55% of survey respondents owned only grafted plants and a further 36% had both grafted and cutting-grown specimens.

For those who had grafted their own plants, five members used *Myoporum insulare* and the remaining two had used *M.* 'Monaro Marvel'.

All forms graft readily onto these species of Myoporum. *E. gilesii* ssp. *variabilis* strikes more easily but is hard to establish in the ground.

Hybrids

E. gilesii is not on the list of "frequent hybridisers" and there are some doubts about the three listed here, even though some of them were included in the survey. However, more hybrids are likely (e.g. see the discussion of Bill Handke's 'Bonza Blue' commencing page 13.

More hybrids may emerge. Ken found a large number of seedlings following the very wet

April of 2020 in a garden bed in Owen where he has a mature Ray Isaacson south-west Queensland *E. gilesii* ssp. *gilesii*. Nearly 30 were grown on and planted out and, after the 2nd flowering (yes, they flowered at 7 months), it would appear that the majority are self-pollinated but there are several which could well be hybrids.

The most likely partners in this case would be *E. simulans* ssp. *lapidensis* and a pink flowered *E. georgei*, these being the closest relatives nearby. One, in particular, is very compact with dark purple flowers. The calyx on several of these suggests hybrids, time will tell.

The small number of confirmed hybrids might be something of a surprise, given the geographic spread of the species and the variability across the range. This may be because it tends to totally dominate the locality in which it grows in the wild.

E. 'Yanna Road'

This plant was collected from near what some atlases is called the Yanna Ridge Siding, or just 'Yanna', in Queensland (south of Charleville). It was originally suggested to be a hybrid between *E. gilesii* and *E. latrobei* by Ken, when he was confronted with a plant in a garden north of Coonabarabran. At the time, he thought it was from further west, near Quilpie, where both these species are common

On later visits he concluded that *E.* Yanna Road was more likely to be a hybrid between *E. goodwinii* and *E. latrobei*, as the natural range of the former species extends past Yanna to the east, further than does *E. gilesii*. Russell has also found large numbers of *E. latrobei* a little in from the road, at locations where *E. goodwinii* grows along the roadside.

Russell notes, however, that *E. gilesii* and *E. latrobei* in that area are both green-leaved but Yanna Road hybrid has grey green leaves. Hence, the jury is still out.

This hybrid was also mentioned in the November 2015 issue of the ESG Newsletters when *E. latrobei* was covered as the feature species, at which time it was still thought to be a hybrid with *E. gilesii*.

E. gilesii x E. georgei

This hybrid appeared in Ken's garden. The flowers are darker than the (presumed) *E. gilesii* parent, the pedicels are shorter and are not as flattened. The sepals are broader and are coloured.

The *E. gilesii* parent is pink. As the survey did not include this hybrid, we don't know who is growing it but likely only two people – Ken and Russell!

E. gilesii ssp. *variabilis x E. spectabilis* ssp. *brevis 'Wiluna Wonder'*

This hybrid was grown by Russell and Ken but is not generally available. It is a natural hybrid that was collected by Ray Isaacson near Wiluna, WA. Russell lost his in all the rain this year.

E. gilesii ssp. *variabilis* x *E. spectabilis* ssp. *brevis* grows 0.6m-1.3m high and wide and has greyish leaves and a mauve flower. It is very close in appearance to its *E. spectabilis* parent but has noticeably narrower leaves (pic below by Russell Wait).

Russell suggests a common name of 'Wiluna Wonder'.

It tolerates medium frost and will handle some shade but does best in full sun.

E. gilesii x E. willsii

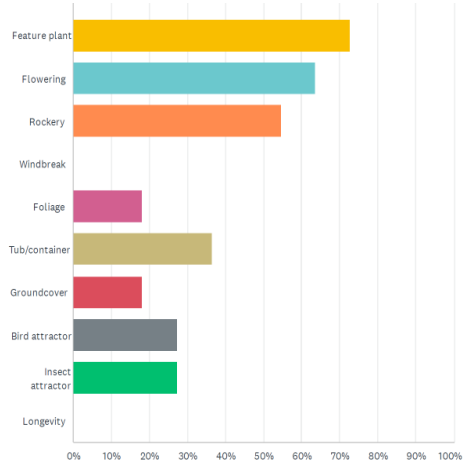
This was collected by Russell this year in the Northern Territory along south road. He found *E. gilesii* growing sparsely a few kilometres, between the hills.

Conclusions

E. gilesii is a small shrub with very showy flowers most of the year, but its slight susceptibility to frost and its tendency to dampen off in wetter regions means this is a species for drier climes or areas where there is good air flow. Pruning should help reduce or limit fungal damage. It may not last more than 5 years or so in the ground.

Selected forms are wonderful plants and none of our respondents have reported weediness further south.

Respondents to the survey recommended it as a feature plant and for its strong flowering. It would do well in a rockery of a tub.



Acknowledgements

Thanks to the 11 members who filled in the survey! And to those who provided photos and assistance with the text.

Web stats

We can now get page statistics from the new website. October 2022 figures show we had an average of 1400 page views per day to the main ESG landing page with an average of 743 unique visitors of which 585 were "first time" visitors. This increased to an average 1500 page views per day in November with 835 unique visits. Wow! I had no idea we were so popular.

Numbers for the image gallery and newsletter sub-pages are much lower – I will try to make more sense of the data for the next newsletter

New Native Garden in Blyth

Ian Roberts

Blyth in South Australia has a new native garden called "The Terrace Garden, Blyth" at 35 South Terrace. It is on a road verge about 200 metres long x 50 metres wide.

This garden was planted in 2020 (400 plants), 2021 (400) and was completed this year (500). While the priority has been Eremophilas, we have in total around 700 species across many genera. Around 120 species have flowered, and it has already become a drawcard for locals and visitors. The Study Group visited on 9 October (see also page 17).

Shown here are *E. clarkei* (or possibly *E. granitica)* below left; *E. strongylophylla* (below centre), *E. hygrophana*, below right; *E. phyllopoda*, bottom left; and *E. hillii* orange, bottom right. The *E. hygrophana* is apparently the one that is a chimera in Eastern states (see also page 11), but so far, there is no sign of that occurring on any of my plants. My daughter has one well over 2 metres high & covered in flowers (pruned twice, about 5 years old). Visitors will be allowed to take cuttings where plants are large enough to allow for that.

The Facebook page is Friends of the Terrace https://www.facebook.com/groups/1216472399106196/. I post photos as plants flower.

Is the grey *E. calorhabdos* a wild hybrid?

Russell Wait

In 1997 I collected the plant we grow as grey *E. calorhabdos* on the Hyden-Norseman road. I have never had the chance to re-visit the area. The road has now been changed so it may not even be possible to do so. Over the years I have become increasingly of the opinion that it may well be a hybrid between *E. calorhabdos* and *E. subfloccosa ssp lanata*, which also grew there.

This suspicion is supported by observations of similar plants at various other times and places. There were quite a few of these presumed hybrids at the original site and I collected two variants, including one which had no sexual parts i.e., no stamens or stigma. It had a very brightly coloured flower, but I failed to maintain it following the original propagation. So, we have come to know it as the "grey *calorhabdos*" (pic right, Brian Freeman) from that trip.

While returning from my first trip to W.A. for three COVID-restricted years, I stopped in an area near Balladonia which had been burnt two years earlier. The pic below shows what I found there – *E. calorhabdos* on the left, *E. subfloccosa ssp lanata* in the foreground and an apparent hybrid on the right. There were four likely hybrids: three taller ones and one bushy one. Could the taller ones be from *E. calorhabdos* seed and the bushy one from *E. subfloccosa* seed?

Observations from both the field and gardens would suggest that further backcrossing can occur, but even DNA testing is unlikely to assist in knowing what happened in that first-found patch, resulting in the spectacular plant which many of us grow. In Ken's plantation it has proved to be a boon to birdwatchers, with observations of a number of rare to the district honeyeaters being recorded.

A seedling which Ken has growing can only be from grey *E. calorhabdos* (right) and is now over 1m high. There would not appear to be any other species involved. This would support observations that hybrid seedlings germinate more readily than straight species but may not be exact replicas of the parent F1 plant.

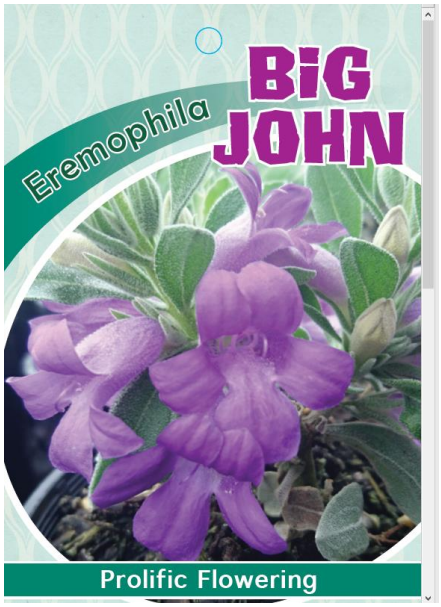
One chimera is now 'Big John'

Lyndal Thorburn

The "plot has thickened" in terms of the chimera story that members have been following for some years. However, we have achieved a good solution in terms of one of these chimeras, at least.

I was contacted by Hans Griesser a few months ago to alert me to the *E. mackinlayi* chimera being sold as "straight" *E. mackinlayi* in South Australia. Hans was concerned, of course, that the general public would buy this plant on the promise of a 1m rockery subject and end up with a giant in their midst, albeit one with enormous purple flowers. At about the same time, I visited Cool Country Natives in Canberra and saw a similarly labelled plant that was clearly heading skywards.

Both plants had come from Native Plant Wholesalers who, it turned out, had obtained the cuttings in good faith from the late Brian Freeman. Brian, at the time of donating them, was unaware he had a triffid in his garden.



Discussions since with NPW have led to development of a label for *E. mackinlayi* chimera 'Big John' – Ken's suggestion, as the original plant is named after one John Mackinlay.

Big John is now described as "A vigorous and colourful large shrub 4mH x 3mW with grey leaves and large purple-blue flowers." After the usual horticultural information, the label also says "Remove any light green shoots emerging from the stem to retain grey appearance."

We are very grateful that NPW has taken our advice on how to manage the fact that this chimera is "out there" and it now has a suitable label that will help home gardeners choose the right plant.

Eremophila in Camden

Arthur Kelly

I have just read the latest newsletter and, as per usual, found it very entertaining and educational.

I thought I would give some feedback on my experiences with some Eremophilas I have (had!) growing here at Camden NSW. We have a clay loam topsoil of about 30 cm over a heavy red clay subsoil. In some parts of the garden (we have an acre of land) I have built up mounded beds but most of the plantings are into the clay loam.

Large areas remained very wet or waterlogged for weeks at a time after the persistent rainfall we have had through summer, autumn and part of winter. We have had close to double our average annual rainfall of 796 mm so far this year. There was 564mm in March and 286mm in July alone.

So, what has happened to my Eremophilas? Here is a summary.

1. A pink form of *E. maculata* that has always been a prolific flowerer (pic below) has sparse flowers and foliage that looks poorly. Flowering has also been delayed in comparison to past years. Several younger plants died. They are all in the clay loam.

2. Five plants of a larger red form of *E. maculata* have survived in the clay loam but they aren't looking too healthy and have sparse flowering this year.
3. *E. bignoniiflora* planted in the clay loam has seemingly been unaffected. Ditto *E. christophorii* x *E. nivea*.
4. *E. maculata* x *E. alternifolia*. Three plants have survived, seemingly unaffected. One in a wetter position died.
5. *E. racemosa* (pic below) and *E. racemosa* x *E. maculata*, *E.* 'Beryl's Blue', *E. glabra* 'Bellala Gold' and *E. christophorii* x *nivea* all died in the clay loam.

7. *E. decipiens* in the clay loam seems to have been unaffected.
8. *E. glabra* x *E. decipiens* (Red Desert). Two in a raised bed unaffected and two in the clay loam died.
9. *E.* 'Mingenew Gold' in a raised bed. One survived, two died.
10. A grafted *E.* 'Meringur Isaac' in the clay loam is seemingly unaffected.
11. There have been variable results with different forms of *E. glabra* in the clay loam. I think most will all survive but a couple are looking a bit sickly. A grey-leafed form sold to me as *E. glabra* 'Murchison' died.
12. *E. deserti* (three plants) in the clay loam seem unaffected
13. *E. drummondii* in the clay loam seems unaffected.
14. I also lost some 150mm pots of *E. racemosa* and *E. racemosa* x *E. maculata* that were on a bench in the open. The constant rain did them in!

I work at my local golf club and have planted a range of Eremophilas there. Briefly, a number of *E. maculata* variants have struggled – even in a bed that I would consider has reasonable drainage. Those are 5-6 years old and were very healthy before the deluge. Most are hanging on but are flowering poorly and their foliage has been affected. Some newer ones on a sloping bank in a different location, which received runoff from above and remained quite wet for an extended period, have died. Older ones there are affected but look like they will survive. *E. maculata* x *E. alternifolia* and *E. deserti* seem unaffected there too. Some dieback has occurred on the end to branches on *E. bignoniiflora* there.

In summary, some have died, some are looking poorly but may survive and others seem unaffected.

I cut back the sickly-looking *E. maculata*, both at home and at the golf course, after flowering and applied Seamungus. They now have new shoots emerging all over them. I am very pleased about that! I also cut one of the *E. glabra* x *E. decipiens* back hard and it is sprouting new shoots too. Ditto an *E. bignoniiflora* and a couple of *E. glabra* 'Kalbarri Red'.

Red Splendour or Spitfire?

Ken Warnes

I noted "Red Splendour" listed as a common name for *E. calorhabdos x splendens*. This is a mistake for which I must accept some responsibility. A nurseryman from S.A. took cuttings from my plants and printed a "Red Splendour" label, which he uses to this day despite my ongoing protestations.

This is the same plant which has been ACRA registered as 'Spitfire' with Russell's endorsement and is sold under that name by all co-operating nurseries. We now know that "Red Splendour" and "Spitfire" are the same plant, vis. *E. calorhabdos* x *E. maculata* ssp. *brevifolia*.

Hybrids in Tathra too?

Bill Handke

Finally, we have been able to leave Canberra and get down to our place near Tathra on the far south coast of NSW, where we also have quite a few Eremophilas.

Last time we were here, some months ago, I noticed a little seedling about 150mm tall in the garden, didn't recognise it and certainly didn't plant it and didn't pull it out. To my surprise and delight it is now 450mm tall and has an Eremophila flower and more to come.

However, the plant is nothing like any of the Eremophilas I have in the garden. It has grey-green fine, soft, velvety leaves and an upright form. I have had other Eremophilas self-seed here. There is no-one else around that grows Eremophilas, so it is unlikely that seed has blown in or been brought by birds.

I asked I asked Ken/Russell and others if it looked like any garden hybrid that they knew of? It is growing near to an *E. gilesii*, *E. oppositifolia*, *E. youngii*, and *E. nivea*, but there are plenty of other Eremophilas around that could be involved.

Comments from Ken

Straight up I'll say that it looks like a funny one, so I'll try and lead you all through the thought processes that I use when dealing with such conundrums.

Firstly, well done on sending a pic which gives vital clues—and I don't mean the flower pic. But perhaps we'll deal with the flower first (below left). It shows a medium size flower (presuming that Bill has a standard size thumb). The shape and petals would suggest that it is a straight blue x blue cross, (the occasional red x blue has quite distinctive arrangement of the lobes) and fine red spots are visible in the throat. So that fits a fair number of species and really tells us nothing.

The second pic (below) shows the habit to be open and probably upright, with narrow and distinctly alternate leaves. The sepals are relatively long and quite narrow, and the pedicels are twin in the axils, of medium length roughly equal to the sepals and are slightly tapering.

Did you get all of those features, particularly the bit about the pedicels? These are all important features and immediately rule out a large number of species.

To the species which are in the bed where the seedling arose. I doubt *E. gilesii* even if it was somewhere near, but it would be handy to know which form of *E. gilesii* it was. The only form which would contribute to the visible hairs would be from SW Qld. But this has wider leaves, a fuzzy tomentum, a large flower and the sepals are dissimilar in that there are 2 broad and 3 narrow. Those shown appear to be uniformly narrow. But *E. gilesii* does have a tapering pedicel. Against that, the only *E. gilesii* we have found to hybridise in the field is from W.A. and these are basically hairless.

For what it's worth, I can actually see characteristics of *E. complanata*, which was also in the bed. The habit, growth rate, leaves, multiple pedicels and long narrow sepals all fit quite well, and the corolla lobes appear somewhat rounded which also fits well. The colour is wrong and the flower too big and I don't know about the throat spotting without a drive to the farm to check. But *E. complanata* doesn't have the hairs which are clearly visible. We have no records of *E. complanata* hybridising but that's immaterial. From the available information, *E. complanata* x *E. gilesii* may be a possibility but is unlikely because of the reservations about *E. gilesii* listed above.

We know *E. nivea* hybridises readily and also has long sepals but there just doesn't seem to be enough hair about to suggest it as a possibility.

I'm doing this from memory and a few brief notes so there may be other species which could be discussed.

We don't know how far insects can transfer pollen, but logic would say not as far as birds can. We have no idea how long pollen remains viable for active cross pollination to occur. That's more Ian's field of investigation than mine. So, does pollination by insects restrict the distance between possible parent plants and thus remove farther away species?

So, I'm not going to stick my neck out on this one. I've simply tried to lead you through the process of gathering and applying available information. I would be very interested to hear the views of others and if you find my thought processes logical.

Have fun all you botanical detectives.

Postscripts

From Bill

Bill gave Cool Country Natives a cutting and they are growing it on as a stock plant to use for propagation. They have raised the possibility of registering it as a cultivar called 'Bonza Blue'.

From Ken

Having now seen a pic of the flowering plant showing its growth habit (below) I'm more prepared to go with the original possibility of *E. gilesii* x *E. complanata* especially if the *E. gilesii* is the SW Queensland form. When I first suggested *E. complanata* I hadn't seen Bill's planting plan and so was unaware that the two species actually grew in the same bed. That information came later.

A few suggested facts might be relative as to why we haven't to this stage been aware of *E. gilesii* hybrids (discussed in more detail in the Feature Species commencing page 3).

Firstly, in general the species grows in huge numbers in monotypic stands thus reducing the chances of naturally occurring hybrids.

Secondly, it is a species not widely grown by members and so the opportunity for cross-pollination in cultivation has not been great. This may be changing and Bill's Tathra hybrid and my suggested *E. gilesii x georgei* (page 7) may be the first examples of what we can expect in the future. We know that in nature it sets huge numbers of fruits with up to 12 seeds in the drupe so the possibility is certainly there.

Which Plant Where?

Lyndal Thorburn

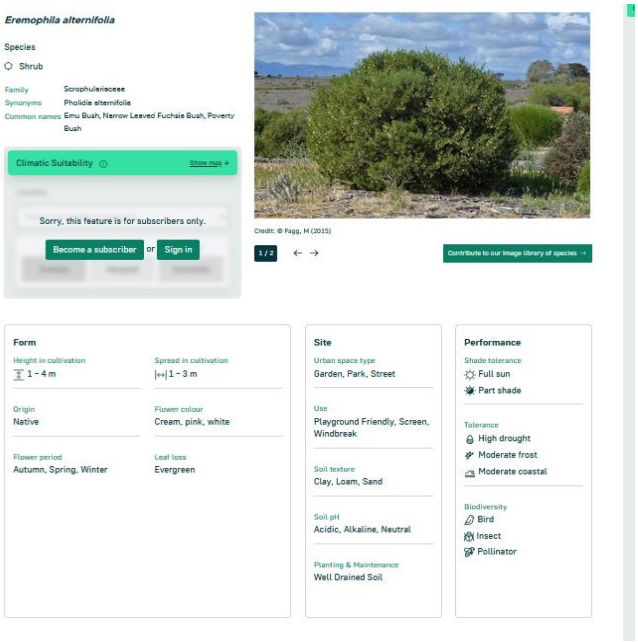
One of the presentations at the Kiama ANPSA Conference covered the development and launch of a new website called *Which Plant Where?* It was developed by Macquarie University on contract to Horticultural Innovation and NSW Planning and Environment and is described as "an online plant selection tool for Australia". The website is www.whichplantwhere.com.au.

In anticipation of a drying climate, the selection tool allows the user to enter their postcode and see a list of recommended plants. Unfortunately, you can only see the first 6 for free, and you have to subscribe to see the rest. I tried my postcode, 2620. The first 6 of 748 on the list were *Abelia grandiflora*, *Abies pinsapo*, *Abutilon fraseri* and three species of Acacia.

The selector allows you to choose plants according to three time frames – 2030, 2050 and 2070. You can also add filters at the beginning of the search – growth form, urban space type (e.g. garden or street), height/spread in cultivation, shade tolerance, leaf loss (i.e. deciduous or evergreen), origin (native or exotic), soil type, shade index, carbon index and biodiversity (i.e. pollinators).

You can search by species, but in this case can only filter by urban space type. This is where it gets interesting. A search for *Eremophila* results in a list of about 40 species. If I choose the first one on the list, *E. alternifolia*, I get a photo of the bush in the wild, with quite a lot of information about growing conditions – height and spread, flowering period and flower colour, sites where it would be useful, whether it is native or not, soil type and pH tolerance, its performance in sun vs. shade, drought and frost tolerance, and whether it attracts birds or insects. Some cultivars are included – e.g. under *Eremophila glabra*, 'Kalbarri Carpet' and 'Amber Carpet' are also listed.

This is all very useful information (see image pasted from the website, next column).



So far so good. However, the conference presenters failed to tell us that there was a subscription fee (a hefty $1200 p.a.) to access the full database. The fee provides access to the full species list for your postcode, plus maps of climatic suitability. At present, I don't know the extent of maps for Eremophilas species.

I have written to the University to congratulate them on this initiative and to alert them to our image gallery and the information on frost tolerance in our "feature species" surveys.

In response, we have been offered a free year's subscription in exchange for providing help with photos and additional information on species.

I am negotiating access now and will be in touch with photographers once I understand the site's preferred licensing arrangements.

IF YOU CAN HELP ENTER EREMOPHILA INTO *WHICH PLANT WHERE* IN THE NEXT YEAR, PLEASE CONTACT THE EDITOR.

HELP GET OUR EREMOPHILA ONTO THIS IMPORTANT DATABASE!!

Gardening Responsibly

Lyndal Thorburn

A new Gardening Responsibly website, https://www.gardeningresponsibly.org.au/, has been launched. The not-for-profit Gardening Responsibly organisation is a consortium of the Australian Garden Council, Australian Institute of Horticulture, Garden Centres Australia, Australian Institute of Landscape Architects, the Citizen Science Association, the NSW National Parks and Wildlife Service, the Royal Botanic Gardens, Garden Clubs Australia, Local Government NSW, Local Land Services, the Horticultural Media Association, the NSW Department of Primary Industries and the Australian Institute of Horticulture.

The website offers information on "certified low risk ornamental plants" – meaning, plants that won't become weedy in the garden. Users can hunt for information on weediness by common or botanical name, or by growth habit – this means the site can also be used for garden planning.

The idea is also that, once species have been declared "low risk", the sellers of those species can place a Gardening Responsibly Ecolabel on the plants in nurseries, to encourage buyers choosing between options in the nursery. I am not clear about the costs for these labels.

Searching the site is free. While there are more than 4,400 species already included in the database, only about 600 of those have been risk-assessed. The organisation is seeking assistance to evaluate the remaining species and add new ones – this takes some time as it is necessary to search through State sites of weeds in order to confirm their status.

There are about 60 Eremophila already listed, although only one has been certified low risk (*E. abietina* – which I entered in September to try out the system). The only ones I know that could be classed as "weedy" would be *E. gilesii* (though as noted on page 4 I can't find this formally listed as such) and *Myoporum bateae*, which in our garden comes up everywhere from seed. You can help extend the Eremophila list – see the box next column.

How You Can Help

1. Register for the Research Portal on www.gardeningresponsibly.org.au
2. Email me to get a list of links to the main State websites you need to explore to report on weediness of the Eremophila you have chosen.
3. Select a few Eremophila and research their weediness and report them on the site. The most efficient way to do this is to choose half a dozen species, then research all of them on each State website in a block, and then enter the info species by species on the GR site.
4. Send me any feedback you wish on the process.

If members are aware of any other weedy species, please let me know!

UQ Research Update

The University of Queensland has finally signed our research contract! (it only took 8 months!) and we have paid the first tranche of funds into their account. This will enable the research team to start x-raying fruit and maybe get out for field collections before Christmas. Members have provided 2,134 fruit for this project – many thanks!

We have also had our Australian Research Council grant confirmed – activity should start after December, when funds become available.

Sub-Group meetings and events

Sydney sub-group

Ian Cox

I went to the Grevillea Study Group meeting at John Elton's place at Coolangatta (near Shoalhaven Heads). John has a large, wonderfully attractive garden, with many different plants growing exceedingly well. We proposed having the ESG NSW sub-group meeting there, in March 2023. This would give time for some of the older Eremophilas to gain new growth after pruning. John said he would know the exact date early in the new year.

I will email those who are on the NSW mail list, once details are finalised.

If you want to join the list, email Ian at itcox (at) bigpond.com.au

South Australian sub-group

Tim Wood

Twenty members of the South Australian Sub-group met at Medika Gallery in Blyth, South Australia in October. We had an exchange of ideas about growing Eremophilas in containers /pots, as well as pests and their management.

Members grew Eremophilas in pots generally when local conditions were unfavourable, which in SA generally means frost (yes, even in Port Augusta and the outback). One member in the Adelaide Hills had difficulties with shade and rain, although nothing to compare to that experienced by our NSW colleagues this year.

Growing in pots also protects from nematodes, which are parasitic and can kill grafted plants on *Myoporum* rootstock in the Port Augusta area. So Peter and Ronda Hall used pots to continue to enjoy these plants.

Pots were generally filled with potting mix, with the Arid Lands Botanic Garden (AALBG) using a mix of 20L cheap potting mix + 4L coarse vermiculite + 2L coco peat + slow release native Nutricote. Every other year (no fixed timing) the soil in the pots is renewed in Autumn by either tipping the plant and root ball out, trimming the bottom 5 cm of the root ball and repotting with fresh potting soil; or using a bulb planter or an auger to remove a plug of soil from 4 areas of the pot and filling these holes with new potting mix. Ceramic or terra-cotta pots were preferred over plastic, although Perry from AALBG introduced the AIR-POT which has holes in the sides as well as the base, to air prune all roots. He will trial it in the shadehouse initially, so we await results.

We then discussed cuttings and their management. Potting mix was favoured over propagating plugs in Port Augusta as the plugs dried out too quickly. The plugs were more suitable for Kadina, which is slightly cooler. At AALBG, plugs were potted on with the top 3mm of plug showing to prevent collar rot. Learning all the time! Overhead misting was commonly used, although some used sealed foam boxes to keep humidity up.

The pest discussion started with a description of an *E. glabra* chewed to the base by wingless grasshoppers. Whilst removal by hand was preferred, Confidor was used as a last resort. Aphids are also a pest in the greenhouse and most used a jet of water or soap spray to control them. Pirimor, an aphid-specific insecticide, was used as a last resort. Brown scale was common in shade houses and was removed with forceps and then followed with horticultural oil. We were reminded that mealy bug can affect the roots as well, and often needs Confidor which is systemic.

Dieback in plants was brought up, with *E. pterocarpa*, *E. youngii*, *E. lepidota*, *E. warnesii* *E. christophorii* (below), *E. lachnocalyx* and *E. prolata* being mentioned. Is it a ringbarking collar rot fungus? The usual solution is to prune to allow for better air flow or to use pots.

This led to the usual conversation of the natural life of Eremophilas in the bush and in gardens. Some like *E. goodwinii* are colonising Eremophilas and only live 2-3 years, and *E. racemosa* has been known to come up after fire and 10 year later has gone, so the moral is keep propagating special plants. We finished by being told to think of hanging pots, and Ronda Hall had an *E. polyclada* in one.

Ken Warnes entertained us before lunch by adding to the *E. hygrophana* and *E. mackinlayi* (see below) chimera stories that have been perplexing us.

After lunch, we strolled through Ian Robert's South Terrace plantation (see page 9 for story). It is certainly a labour of love, and to see *E. phyllopoda ssp obliqua* making a statement on a main road was a pleasant surprise. As expected with such a large variety of plants, sore backs were prominent as members bent over to take cuttings.

In closing, Ross Dawkins gave the group metres of Nescofilm and Parafilm grafting tape, courtesy of Bev and Ian Rice, who have moved into town from the farm. We distributed some at the meeting, and if any members want some please contact me. Also, Ian Roberts' laser-printed labels came from Ken Cleine at coilmaster@bigpond.com

NEXT SOUTH AUSTRALIAN MEETING:

In April 2023 in Port Augusta, actual date TBC

For more info email Tim Wood: drspock52 (at) gmail.com

Topic – Maintaining Eremophilas in a garden – fertiliser, watering and pruning

Victorian sub-group

Chris Strachan

The Victorian group meet on 19 November at Bob and Margaret Blake's in Pimpinio, Vic.

L to R: Glenda Datson, Christine Strachan, Bernie Datson, Margaret and Bob Blake, Brian Henrickson, Keith Boschen, Neil Duncan, Norma Boschen, Neville Collier and Maree Goods.

The planned discussion on which species flowered soon after rain (no matter the time of year) and which followed seasonal cues had been overtaken by the amount of rain being so much that it wasn't possible to determine the former! Glenda mentioned that her dwarf *E. oppositifolia* and *E. abietina* subsp. *abietina* had performed extremely well with no ill effects yet all others had some ill effects from the rain, yet not as much as in a frosty year. Glenda and Bob both lamented the effect of so much rain on *E. waitii*.

The second discussion was about the variety of forms being grown, e.g. for *E. macdonnellii*. General consensus was that most were short lived, but Neville has three forms – Everard variety (grey-leafed, purple flower); Simpson Desert form (grey, small leaf); and a very small-leafed form which survived cold weather and frost better. Norma has three forms, Bob has three, Brian had quite a few, none left now.

Maree mentioned that the grey-leafed form is possibly fire-responsive as she had seen a large area covered with new plants after a fire. Perhaps they are 'pioneer' plants?

The third discussion was about bird-attractors. All members had dominant nectar-feeding bird in their gardens, i.e. noisy miner, red wattle bird.

Those who also had the smaller nectar feeding birds found that they usually hid in the dense varieties of Eremophila when the larger birds were present. It was also noted that the smaller birds were often in the blue-purple flowered plants which attract the insect pollinators – obviously food for them. Brian said the New Holland Honeyeaters don't touch the blue-flowered species, although Neville said he had birds in *E. hygrophana*. Norma has a large population of White-plumed Honeyeaters feeding throughout. The Eastern Spinebills love the *E. youngii*, 'Kalbarri Carpet' and others found they loved the green-flowering glabra groundcovers.

Everyone found birds love the *E. maculata*, the Red Wattlebird loves *E. lucida* and *E. calorhabdos* is a great one for birds generally.

Other discussion:

Pests: Norma said she has terrible trouble with wingless grasshoppers on one particular plant of *E. salcata*. They seem attracted to that plant each year

Frost: Maree is surprised at how frost affects plants in our gardens yet they are not affected in their own habitats. Norma said that she thinks that is because plants are too lush in our wetter climates therefore get frosted.

Floods: Photos were shown of John Upsher's flooded garden in Maribyrnong where water had gone right over the top for a day (see p. 22), but he thinks they are recovering. Neil said others had hosed off the mud to allow photosynthesis and had amazing responses.

Chris talked about her son Daniel's farm at Fernihurst where the 2011 flood water was up for a long time and the entire garden was lost but the recent flood, which came to an inch below the house floorboards and right through the garden, receded over the next day and they are hoping plants will survive.

Maree said in her experience *E. polyclada* (and *E. laanii*) were the only plants which grow on floodplains which survive when under for a lengthy time. But if the flood is a "quick up and down" others survive. Graeme talked about those on clay soils which asphyxiate without aeration.

Favourites: Discussion took place on favourite Eremophila with *E. calorhabdos* coming out in front, followed by *E. cuneifolia*. Others mentioned were *E. phyllopoda* (Norma said the form with 2 flowers in the axil is the showiest), hygrophana (Bob loved looking at the birds in this through the window), *E. macgillivrayi*, *E. lucida* (cream), *E. oppositifolia* (because there are so many forms) and Big Poly.

E. longifolia was mentioned by a couple of local (Wimmera) members as "looking terrible" - both the local form and the Central Australian form. They said it always dies in winter then picks up in spring/summer. Neville has a good, orange-flowered form, grafted onto Myoporum montanum, from Lyndal. Christine has one in a crack in the footpath which gets cut back but keeps growing back (she doesn't get frosts).

Glenda, Brian and Christine's *E. maculata* all suffer dieback, Norma says the Scotia form is good. Brian says the Wimmera people have no trouble with. *E. maculata*.

Striking cuttings in water: There was a lot of discussion about Bernie Shanahan's method of striking Myoporum cuttings in a cup of water and getting roots in just 3 weeks. This was from an article on the Facebook site 'Old Man Emu Bush' in May. We had all tried this method and failed. Neil mentioned having success striking cuttings of non-native difficult-to-strike species by running Plant Starter through a hydroponics system, so maybe try this method with *M. montanum*. Bob then provided all with a print-out of an article - not sure where from, possibly Facebook – stating that they learnt from a workshop in Perth to soak cuttings in a solution of aspirin (1 tablet in 5 litres of water) as plants produce salicylic acid when stressed, so if they are soaked in it they don't have to work to produce it and have a better success rate. Maree knows of this method and suggests soaking 1-2 hours only.

Bob and Margaret's garden brought many exclamations of delight from all of us. They have about one acre plus a railway reserve at the back that Bob has planted out with a mix of

natives. The gardens that surround their house are a variety of natives - mostly Eremophilas but many Correas that are another passion. Bob propagates most of his own Eremophilas both by cutting and grafting and has an extensive collection.

Sincere thanks to Bob and Margaret for their warm hospitality on such a wet and wild day - a memorable visit to a hidden oasis.

Some of the members then went back to Horsham to visit Maree and Graeme's new home after moving from their farm. We then went to see their amazing effort in planting out the Church of Christ Garden in Horsham. Maree and Graeme propagated and planted out the gardens just 4 years ago and it is a sight to see in flower.

NEXT VICTORIAN MEETING:

April 2023, at Laurie and Drew Baglin's garden in Shepparton.

For more info email Chris Strachan: doowop49 (at) hotmail.com

Queensland sub-group

Noreen Baxter

Nine members visited Myall Park in October 2022, to follow up the successful planting weekend in 2021. Most arrived on the Friday in time to revisit areas of interest, and of course the previous year's plantings.

The weather rapidly developed as the main topic of concern. There was more rain than expected on Friday night, with further falls predicted for Saturday and Sunday. Myall Park had flooded in 2022 and again a few weeks prior to the visit, when the road had closed for a few days. So even a small additional amount of rain had the potential to cause road closures. Unfortunately, both Reddicks and Baxters, due to unexpected medical appointments in Brisbane, could not risk being flood bound at Myall Park. With more rain forecast, the Baxters left Saturday lunch time as soon as the replanting was completed and the Reddicks left later that day. The Cox/Glazebrook group, with high clearance 4WD vehicles, stayed on and managed to leave on the Monday as the road dried out, but Dick Harding did not leave until Tuesday.

Initial impression was of massive losses. However, on closer inspection there were fewer losses than expected, but the growth rate had been slower than usual and quite a few plants appeared to be suffering from scale attack.

An initial rather cursory review of the 2021 plantings was done on the Friday afternoon with the intention of doing a complete review over the weekend. However, due to our rapid departure that never happened. First observations appeared to indicate that the beds that had received both Osmocote and blood and bone at planting were in better condition with fewer losses than the beds that had received only Osmocote or Blood and Bone, but the group noted that there were other factors that might have affected results, like different soil types and the that the fertiliser study was a last-minute decision (so precise quantities had not been recorded). About the only thing to take away from this is exercise would be that Eremophilas are fertiliser hungry.

In the "patch" an *E. christophorii x nivea* and about four yellow *E. glabra* appeared to be the best performers.

On Saturday morning the group planted out 19 new Eremophilas that Dick had on hand, into spaces where the original plants had died. Twenty-one name tags were removed from dead plants.

On the Friday afternoon we walked back to how some of the survivors from the original 1953 plantings had managed through the very wet months. The patch of *E gilesii* on the roadside not far from Avochi Cottage was thriving. A bit further down the track, and quite a distance from the road, Dick had cut the grass down a bit to lead into the two patches of *E. bowmanii* hybrids. Again these were thriving with lots of young bushes appearing. The area of growth is extending, as were the *E linsmithii* and *E latrobeii*. There also appeared to be possibly one or two other hybrid species in the patches and it was intended to "borrow Jan Glazebrook's brain" later to have a closer look at these.

An array of Eremophilas, which we had barely noticed on our first trip, including a large patch of *E. polyclada*, were flowering on either side of the road.

Interestingly, despite the very wet year and the unusual number of sunless or dull days, the thriving growth of the mature plants of all ages is consistent with our members' reports from their own gardens, where most of the losses appear to have been in plants less than 4 years old.

NEXT QUEENSLAND MEETING:

Date and location have not been set yet.

More info email Lorelei Bartkowski: **mattnlol (at) gmail.com**

Also, a reminder that Jan Glazebrook has invited members to participate in a 10-day trip to Cunnamulla, Quilpie, Jundah, Winton, Bladensburg, Augathella, and Charleville in July 2023. Anyone interested will have to organise their own bookings and catering and it is planned that overnight stops will be in towns where non-campers can book a cabin in the local caravan park. A spare day will be allowed for Winton. Contact Jan Glazebrook for further details as the plan evolves (**janglazebrook (at) gmail.com**; 07 5546 8590).

Posting Bare-rooted Plants

Lyndal Thorburn

I asked Dick Harding for some cuttings of the MPBG's lovely purples *E. christophorii* a few months ago and he posted those to me in October. He also sent me a bare-rooted *Eremophila duttonii*, which was something of a surprise, as I had never thought doing such a thing was possible!

The plant, about 30cm high, had been wrapped in damp paper and a plastic bag and arrived in good condition with some soil around its roots. I put it straight into a pot with potting mix and slow-release fertiliser. I left its plastic bag loosely over the top leaves as I wasn't sure how shocked it would be after its treatment. Over the next few weeks most of these leaves went brown and are falling off.

However, as can be seen from the photo below, there are now new shoots on the ends of the branches. It looks like it might survive!

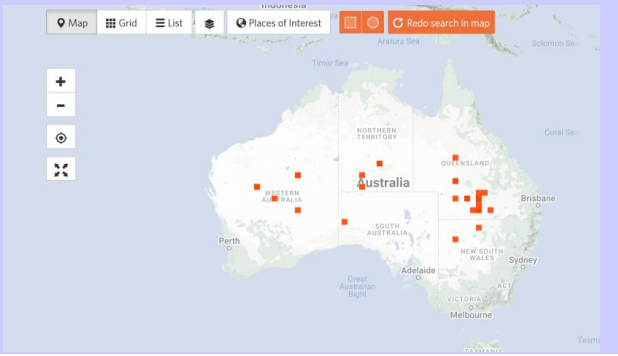
Many thanks, Dick, for your ingenuity.

Can you Help Expand iNaturalist Eremophila Records?

www.inaturalist.org is a non-profit which aims to develop an online social network of people who share biodiversity information and learn about nature. It is also a crowdsourced species identification system which you can use to record your own observations, get help with identifications, collaborate with others to collect information for a common purpose, or access the observational data collected by iNaturalist users.

There are currently 3,093 records of 165 species of Eremophila on *iNaturalist*. These have been contributed by 669 observers.

So, we are missing about 75 species in the records, and those that are there are sparse – see the *E. gilesii* map below. If you take photos of Eremophila on your phone (and hence have a GPS record of location), why not upload them to iNaturalist as well, and help increase public records of locations and natural ranges?

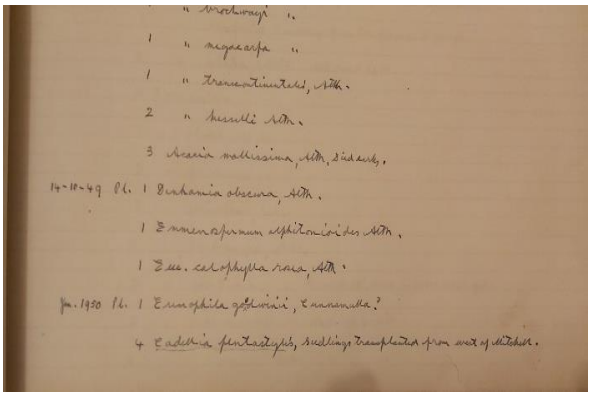


Snippets

Glenda Datson (Vic): Something passed to me, which I think may have come from a Facebook post by Australian Native Gardens, which you may wish to check out: "King's Park Botanic Gardens in Perth soak their cutting material in a solution of aspirin (1 tablet in 5 litres of water) as plants produce salicylic acid when stressed, so if they are soaked in it they don't have to work to produce it and have a better success rate. They are still researching what the purpose of the salicylic acid has and why the plant produces it."[3] See also discussion of this issue under the Victorian sub-group report (page 18).

Also, from another post by someone else who is a contract wholesaler: "If you want a natural fungicide use 5g bicarbonate of soda per litre of water. It changes the pH on the surface of the leaf and fungus can't survive in it."

Dick Harding (Qld): In the spirit of your speech on Eremophila cultivation history, delivered at Kiama, the image (next column) is a page from one of about sixty of Dave Gordon's accession books that are being stored in the Seed Room at Myall Park Botanic Gardens. The second bottom line records that during January 1950 he planted one *Eremophila goodwinii* that came from "Cunnamulla?". I interpret the entries above the *E. goodwinii* as referring to plants that came from his friend George Althofer ("Alth.") who had a plant nursery near Dubbo about that time. George wrote a book about it in 1956 "*The story of Nindethana and new and enlarged catalogue of Australian native plants by Nindethana Nursery Dripstone, N.S.W.*: Nindethana Nursery, [1956]".[4] I have purchased the book and will write an article about this for the next Newsletter.



I also went looking for seed for the NPQ project. I spent some time looking for seed on the *E. mitchellii* at MPBG and at one location along the Surat Development Road to the east of Tara. I suppose that I looked closely at 25 trees and briefly at as many again. Almost all of them were either flowering strongly or had masses of buds with a few fully open flowers. A small number had no obvious flowers or buds. None had retained any seed from their last flowering. I don't expect to be out there until late March, so I will look again, but would not be surprised if they had all jettisoned their fruit by then.

John Upsher (Vic): This is my back garden at Maribyrnong. Could be a trial for the Eremophilas. Plants are still dying 5 weeks after inundation.

[3] See also Stevens, J *et al* (2006): *Salicylic Acid Induces Salinity Tolerance in Tomato (Lycopersicon esculentum cv. Roma): Associated Changes in Gas Exchange, Water Relations and Membrane Stabilisation*, Plant Growth Regulation 49(1), www.researchgate.net

[4] See https://www.anbg.gov.au/history-horticulture/nindethana/index.html for some extracts from the book. A note at the top says that "this report it has been scanned by optical character recognition" – code for "this has lots of typos and we haven't corrected them" – including Erernophila!

Russell Wait (Vic): Now I have had a very wet year and have only had a couple of hours of sunlight in the last five months and it has killed some of my Eremophilas. The one most affected is *E. platycalyx* and the likes of *E. christophorii* no more than usual. An unusual year.

Below is a photo of a graft using the *E. mackinlayi* chimera as root stock, and as you can see there is the shoot of the chimera (grey-green, lowest shoot) plus the scion (*E. arguta* – small green leaves) and a very strong shoot of Myoporum (large green leaf and brown stem).

I also have a photo from a very good grower of Eremophila that has a cutting-grown chimera that has a sucker coming for it that is Myoporum and there is no other grafted or Myoporum anywhere near it.

Ken Warnes (SA): I met my contact from Streaky Bay on a quick trip and have seen the multiple "praecox" around Wudinna. No *E. weldii* were seen but he assures me that they are about. The puzzler is that there are long loose hairs on the new growth and both parents are hairless. The nearest recorded "praecox" are much further west, like 250km away, but what else do we call them?

East of Iron Knob I stopped for some *E. alternifolia* cuttings and was staggered to see *E. latrobei* calyces out my window. Closer examination showed a single 2.4m *E. latrobei* growing with an *E. alternifolia* right by the road.

We had both driven past it multiple times without spotting it, and in fact the SG field trip went right past it. That would have to be the most southern recording for *E. latrobei* that I know of. Naturally it's now being propagated.

I can hardly move in my glasshouse for all Russell's field trip collections, as cutting grafts or straight cuttings (the latter a bit slower), Except for *E. waitii*, I've never known anything to root so quickly and strongly.

Finally, commiserations to Eastern growers who have had to watch helplessly as work, hopes and dreams have disappeared under floodwaters.

Corrigenda

Thanks to Peter Lang for pointing out my geographical *faux pas* in the last Newsletter, where I translocated Mildura, Vic into South Australia.

Peter also said that I misremembered Ray Schilling as Frank Schilling – I was mixed up with Frank Fitzpatrick, another pioneer.

Next issue

The feature species for the next issue will be *Eremophila youngii*, which is grown by many members. There are two subspecies, two colour forms and up to three hybrids. A survey will be issued after Christmas.

If you'd like to send info on which of your Eremophila species survived total inundation, please do!

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) https://anpsa.org.au/study_group/eremophila-study-group/

Study Groups allow members with specific interests to develop that interest to the full and to contribute 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. Back issues of newsletters can be found via the SG's home page.

In addition to paying annual fees, members must also be members of an ANPSA-affiliated regional society (https://anpsa.org.au/membership/).

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 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) (studygroups (at) anpsa.org.au)

NEXT NEWSLETTER when I have enough for 24 pages