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Eremophila Study Group Newsletter No. 114

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Left – *E. veronica* grafted on to *E. denticulata var trisulcata* (C Farrugia). Below – *E. mackinlayi ssp. mackinlayi*, open form (B Freeman)

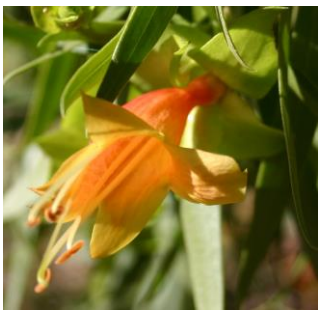
Letter from the Editor

Welcome to the Pinery Fires edition of the Eremophila Study Group Newsletter. Ken Warnes has provided a wealth of information on his plantation's recovery from the fire. The regrowth, particularly from seed, of many of his plants shows the resilience of Australian vegetation and its ability to regenerate, and particularly the importance of smoke.

As June is the end of our membership year. Those of you whose memberships expire in June 2016 need to pay by 1 September to stay on the mail list. If you are getting this newsletter by post there will be a renewal form in the envelope; and if you receive it by email you will get a separate email with the renewal request. Thanks again to all of you who have paid for more than one year – that makes my life a lot easier!

Lyndal Thorburn

Leader and Newsletter Editor,
Eremophila Study Group



What's New in the Study Group

Study Group website

Another batch of newsletters has been scanned in (thanks to Charles Farrugia for the copies and to Norma Boschen for some scanning) and can be downloaded via the group's website main page at www.anspsa.org.au/eremophilaSG or direct at http://anpsa.org.au/eremophilaSG/ESG-news.html. There is some conjecture as to whether this was ever printed – if anyone has a copy, please let me know!

In addition there are four indexes available spanning almost all the newsletters from 1-99. Brian Walters has worked further magic and this collection is now searchable via the search box at the top of the newsletters web page.

The next development on the website will be a short item on past Study Group leaders so this information is available as a tribute to their work and expertise – watch this space!

New members

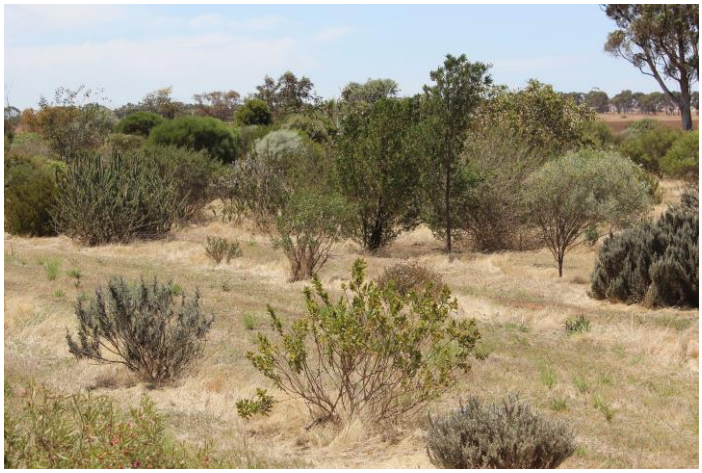
Welcome to new members Neville Collier (Avoca, Vic). Brian Hendrickson (Daisy Hill, Vic), Margaret Lawton (Warwick, Qld) and Barbara Thomas (Weston, ACT).

CDs of the Newsletter

It has occurred to me that those of you who receive this Newsletter by POST may still have a computer even if you don't have email. You can ask to receive the newsletter by CD, which is the same cost to post, as it would mean you can see the articles in colour rather than black and white (the printed version). If those "post" members would like to receive the Newsletter this way, just drop me a line.

Pinery Fires Report

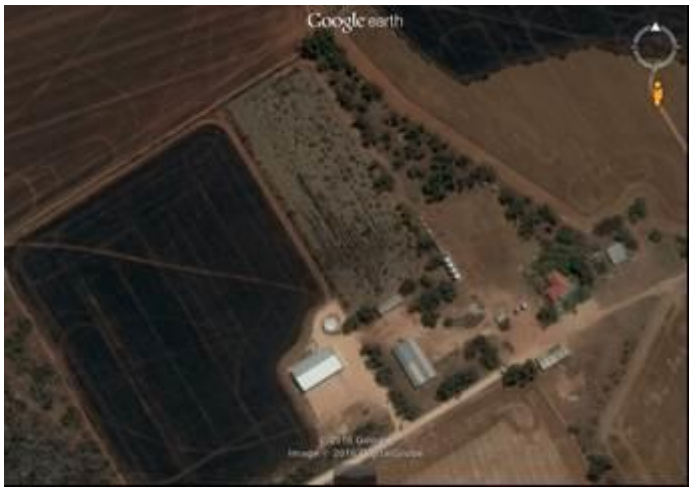
Or – "We all know that Eremophilas Don't Grow From Seed"



Ken Warnes, founder of our study group, lives in Owen SA and has a farm about 6km from town. Up until November 2016 he had a large Eremophila plantation with over 300 specimens, and hybrids, (right) which had flourished for many years. On 24 November 2015 a fast-moving grass fire started at Pinery, travelled south-east and then north-east towards Owen and Kapunda, affecting dozens of landholders. The fire burnt 84,000 hectares including parts of Ken's property (but not the house).

Ken has been recording the impact of the fires on his Eremophila plantation, including what has happened since. This report is an edited version of his emails, with photos supplied by Ken. Prior to the fire Ken was aware of four individual wild Eremophila plants growing in the local region. These are also mentioned in his correspondence. *Lyndal Thorburn*

<u>End November</u>

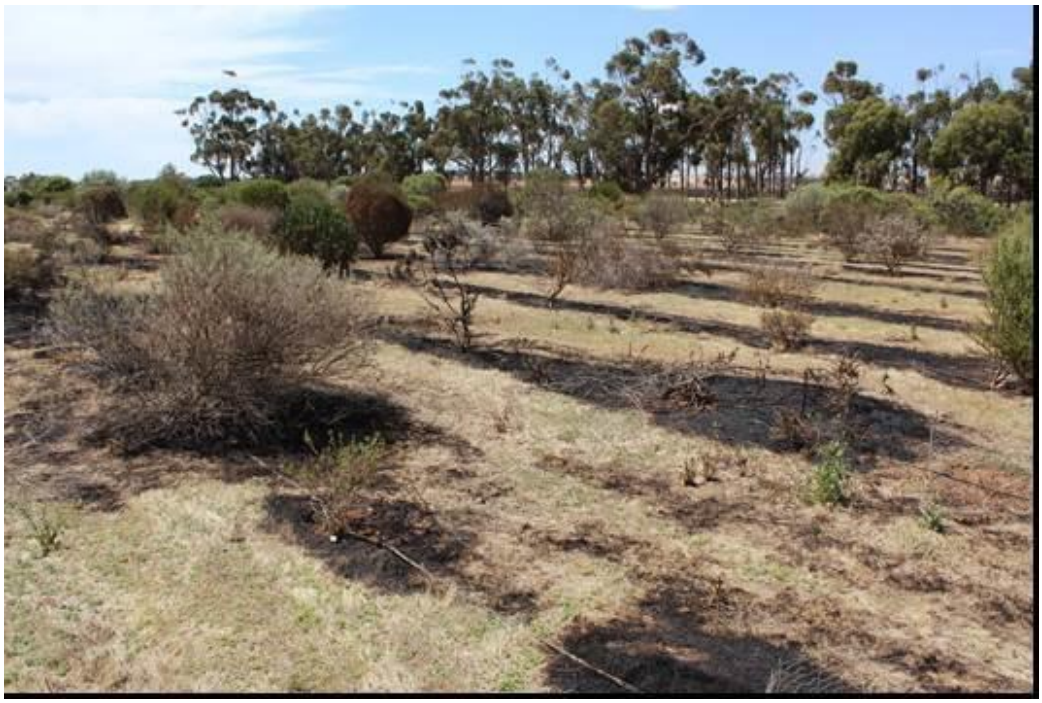


The Google Earth photo at left, which appears to be a composite, shows the farm with one burnt crop paddock and the burnt plantation as well as the unscathed shed and house. The fire in the small paddock top left threatened the house as it came around the plantation and was back burning from the top of the picture, about 150m away. The top and lower right were standing crop at the time, which in the picture show as stubble but were actually were reaped two days later. The lower left corner shows the scrub reserve with its ash layers and from which the fire emerged to take out the small paddock which was unreaped. The *E. saligna* killed by radiant heat, right, was part of the wind-break along the long boundary of the plantings.

The fire entered the plantings and spread

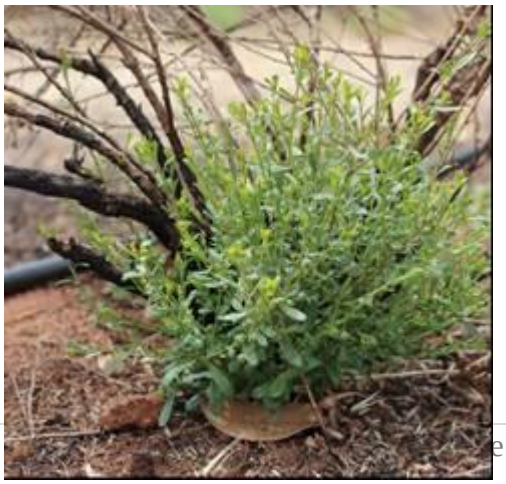
along the rows until I put them all out with a long-handled shovel after the house was deemed secure.

Many plants were killed by direct flame – for example the *E. decussata* at right. Some plants actually burned, I stood and watched them. Not surprising really, with their woody centres and perhaps some volatile oils in their system. Among the burners: *E. divaricata*, E. "Summertime Blue" and the Section Decussatae (decussata, delisseri, dendritica, malacoides) amd densifolia (purple prostrate). The photo below shows the plantation immediately after the fire.



End December

The 800m of drip-line was reinstalled in December, by which time many of the Myoporum stock was re-shooting even though the grafts had died. The two pictures below show *E. Summertime Blue* (at left) and *E. spinescens* (at right) re-shooting at 30 days post-fire.



5 January

We are still in a state of semi-numbness on many fronts. Very interesting to see what is shooting. I have visited the four one-only's in the fire zone: (*E. scoparia*, *E. subfloccosa subsp. glandulifera*, *E. glabra* Alma Plains and *E. glabra prostrate* "Woolsheds" (cf. glabra Roseworthy that went several years ago)). All are gone but all are also in my plantation so some earnest re-establishment is required. It shows how tenuous our links with the former vegetation is. I'll check for regrowth and seedlings at a later date but for now all are gone.

13 January

My plants are responding to the fire in varying ways from dead to robust but it's early days yet. There has been no rain so I don't know if the heat affected fruits (right) will respond with bounteous seedlings. However it seems likely that seed on bare ground like this is cooked. Propagation is frustrating with the intense temperatures killing off what appear to be good strong plants after potting on.

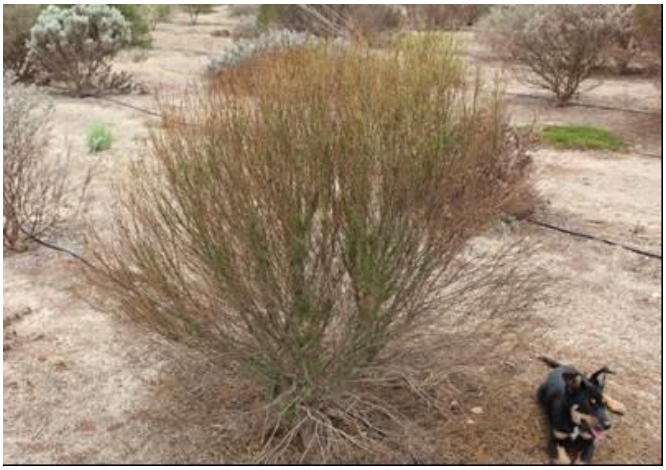
5 February:

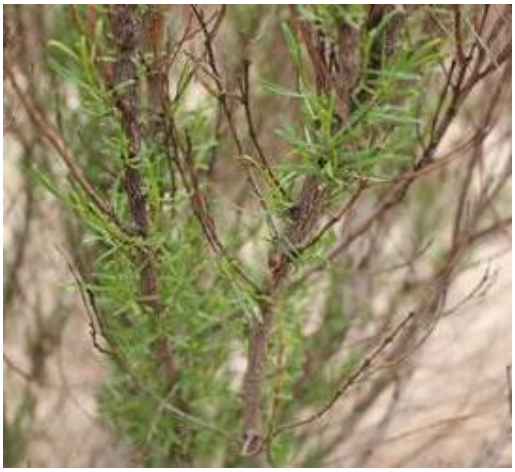
The area is still a mess with dust storms most days. Some farmers are sowing screenings to try and get some cover on the ground. Some farmers are sowing screenings to try and get some cover on the ground. Fortunately, our soil is holding well after dry cultivation.

I have visited each of the 4 individual, lone survivors ("one-only's" mentioned above) in the fire area and it got every one of them. All are in my plantation so if they don't re-shoot I may have to arrange for them to re-appear from cuttings which won't mess with the genetics.

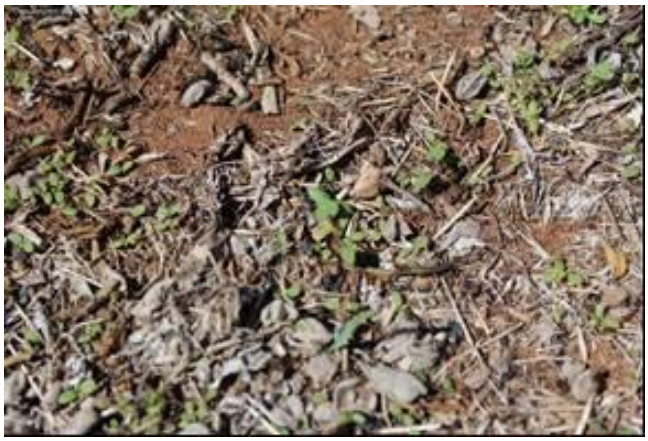
Still much activity after the fire and only today I found that *E. delisseri* has shot from the crown (right – *E. delisseri* shoots are in the centre; left and right shoots are the Myoporum stock). The reversion to juvenile foliage takes a bit of coming to terms with as with some it's not all that different to the root-stock. Many seedlings emerged after 43mm rain in late January but none in the burnt areas. I'm putting that down to the fact that the fruits are lying exposed on totally bare areas and may not have absorbed enough moisture whereas those in trash stayed wet for longer.

There is some canopy re-growth occurring on established plants – the photos below are of *E. aureivisca* at around 30 days, whole bush (left - with Panda the dog, Official Supervisor) and a close-up of the growth along the stems (right).

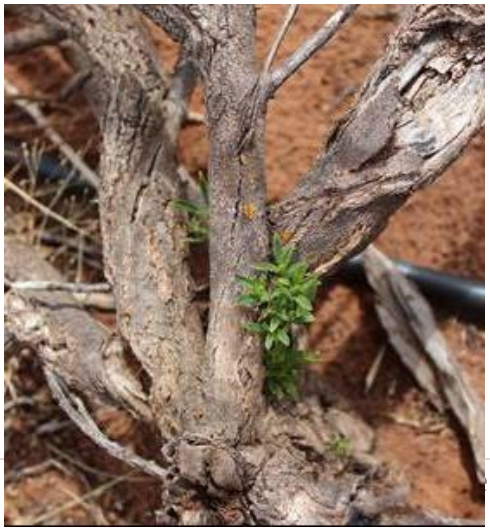




The majority of seeds germinating to date, except for a pair of *E. georgei* are from Section Hygrophanae in the original plantation, with *E. warnesii* leading the charge with over 30 seedlings (right). With a week of mid 30's forecast I will have to soon decide if I am going to pot them up at only 3-4 days old. Left in position the mortality rates will be high.

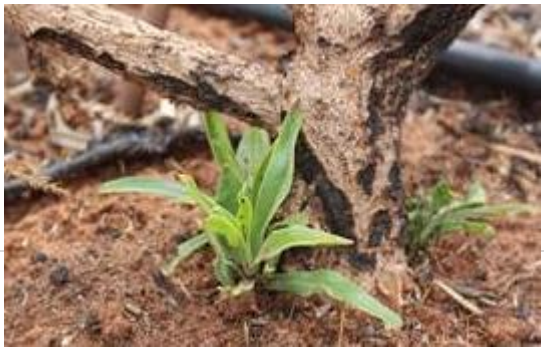


I continue to hunt for seedlings. I do a hands-and-knees search in expected areas and clear weed seedlings and mark the Eremophilas with a stick until I can get to them. I transplant them into 25mm tubes at cotyledon stage and later pot on into large containers. Some respond better than others but it seems to be the best method. There has obviously been some fruit movement as some are clearly not from where I dug them up. And how come there's a seedling *E. glabra* 50m away up against a shed? There's even what appears to be an *E. warnesii* in the raised bed here at the house in Owen.



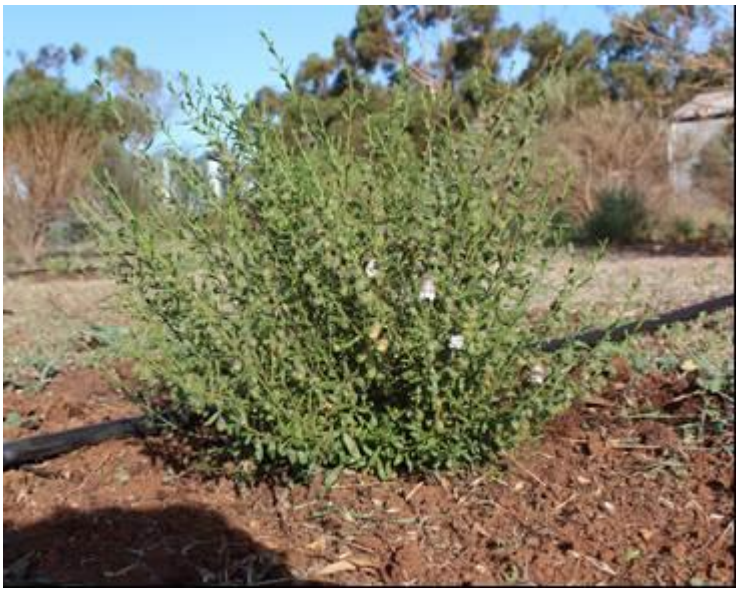
<u>24 February</u>

Still progress post fire with some new one plants shooting (e.g. *E. arenaria* at right), but others such a *E. freelingii* (below), have



given up after having a bit of a go (the *E. arenaria* also later died). I've lost a lot of potted seedlings but that's normal in the Summer sun.

A few alive in the ground but I have been carrying water to them. *E. warnesii* has been the big mover and shaker, probably about 40 seedlings, even one here in Owen and there has been germination between and under plants only a year old which is most unusual. Did the fire trigger this and what does it say about the time in which any inhibitor becomes "active"? Oh dear, more questions without answers.



E. spinescens (right), burnt to bare sticks in November, is flowering after 12 weeks. Now that's what I call recovery.

There was also 25mm rain during the month and this may have induced some regrowth on species which had not shot after the January rains, despite there being less rain this time. All the plants in the Decussatae group have re-shot, except for *E. decussata* itself.

A surprise was finding ten *E. prostrata* seedlings in an area that had been smoke-affected but not touched by the fire itself.

None of the *E. maculata* have produced seeds or shown any regrowth.

5 March

No rain of late and a very hot week forecast, looks like more trips with the watering can to keep the seedlings left *in situ* alive. They are growing strongly from the late January rain. The potted ones are much slower, with varying rates of survival among the various species. *E. warnesii* is the stand out species from this round of germination.

Some of the shooting regrowth from the fire is at the stage that I have cut out the burnt wood and the new little plants are up and about, up to 30cm high and flowering. Quite amazing.

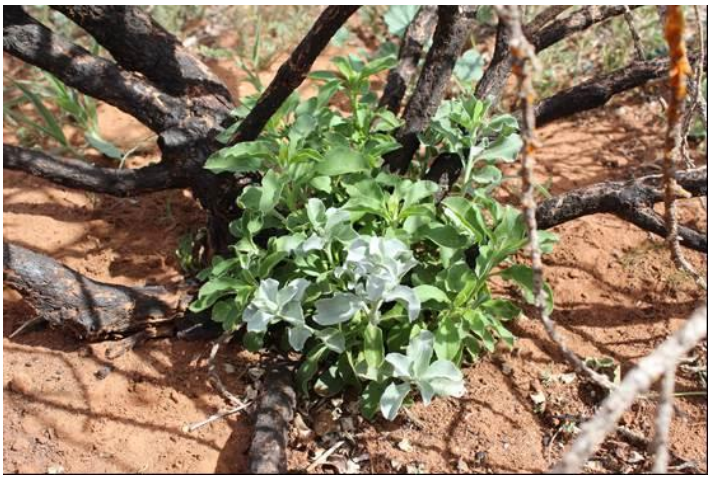
15 March

The rain in late February plus a handy 4mm in early March have each produced considerable numbers of volunteer seedlings. We also had 75mm late October (pre-fire) but no seedlings – I suspect the soil temperature was still too low.

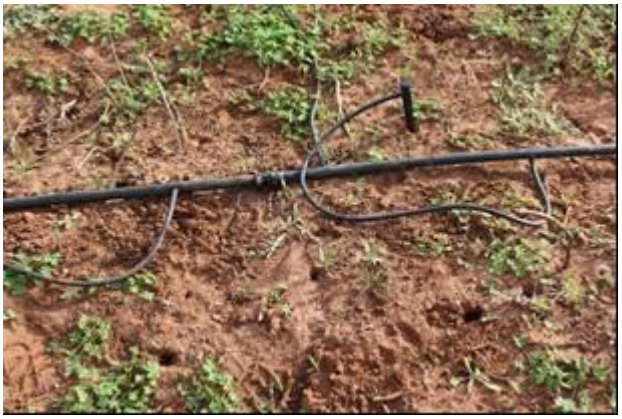
I have potted the seedlings which appeared in January – the Hygrophanae Section of the original plantation dominated, with 40+ *E. warnesii* plus seedlings from most in the group except true *E. hygrophana*. There were several *aff hygrophana* that may be split off at some stage. Also potted some seedlings from WA *E. gilesii, E. latrobei, E. obliquisepala, E. georgei, E. clarkei* and some others but mainly in small numbers.

There have been varying levels of survival: *E. warnesii* 21/24 surviving but others not so good. I've kept some alive *in situ* with added water and they are probably doing better than the potted ones. But there are plenty of losses in the ones left *in situ* as well. It is Summer after all and the moisture didn't hang around for long.

The March rain was only last Wednesday night and I was finding new seedlings by Saturday and they are still appearing. Many the same as January, but today I was most excited to find seedlings where I had previously had plants of *E. elderi* white flower (the one in the Changing Gardens book), *E. elderi* blue flower Ormiston Gorge, *E. acrida* blue from Bushy Park Station NE of Alice Springs, *E. goodwinii ssp ecapitata* and several others. I also found a few that must have survived from January and a blue *E. elderi* that was 7cm high with a sturdy stem that I can only guess how old it is. If it has survived from last February it would have been sprayed with Glyphosate for certain. So, hope springs eternal. Photo at left is the *E. rotundifolia* breaking into adult leaf at 100 days post-fire.



I used my record book to find where plants were previously growing and still have more to hunt down because losses are high and some don't have a long life down South. These are only the ones I have found, who knows what else is out there but it's a very time-consuming task finding, clearing and marking them. Today I tried connecting spaghetti tube with spider sprays direct into the drip-line to water larger areas (left) until I can decide on the next step. It's a huge job to try and save them all, 12 months before they can even be planted out and perhaps several years to see if they are something different. Where's the young Ken Warnes when he's needed?



Last summer's swarm of Section Hygrophanae associates (right, including a lone green *E. macdonnellii*) are ready to plant and there's great variation among them. Clearly several hybrids but it's anyone's guess on most of them. Or is it just natural variation?

There are also several of Russell Wait's field-collected hybrids with

seedlings. The one from the Rawlinson Range that we presume is a natural cross between *E. hughesii* and the Rawlinson Range form of *E. acrida* could have from 50 to 100 seedlings and they would be a great interest to save and grow on. That's the equivalent of a large husky crossed to a whippet with greyhound-length legs so the F2 hybrids could be an interesting lot. I have yet to find any seedlings of the Rawlinson Range *E. acrida* so it may be lost. It has been a constant battle to keep it in cultivation and I don't know of anyone still growing it. It's the one shown in Brown and Buirchall's book (A Field Guide to the Eremophilas of Western Australia) as *E. elderi* which I don't believe is the correct name and in fact they suggest as much in a footnote. It's an unnamed species or sub-species almost certainly.

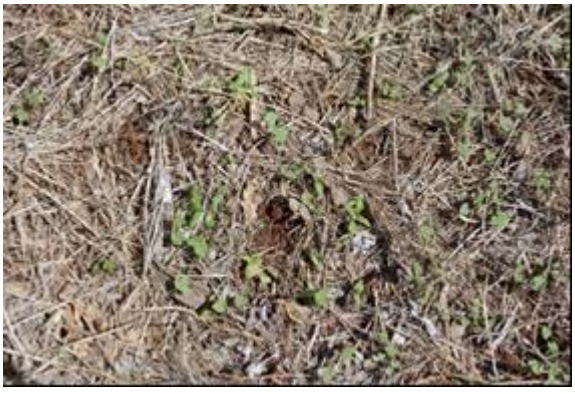
Fire recovery continues and I am amazed how many grafted plants are having a rebirth. Some are clearly lost but a few have the burnt wood cut out and are already flowering. Seed beds that were hot-burnt appear to be destroyed but there are still a lot of heat- or smoke-affected fruits lying around.

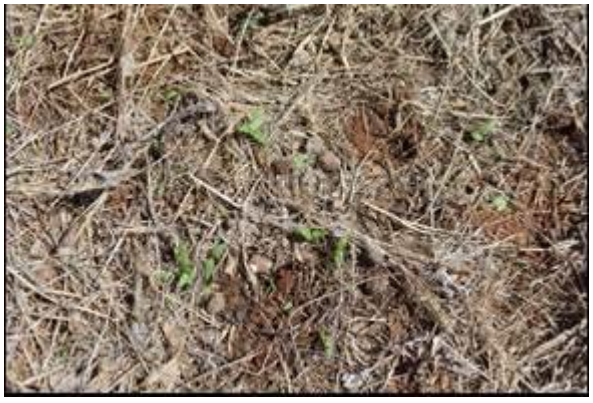
Peter and Ronda Hall dropped in with 3 boxes of plants grown at the Arid Lands Nursery from your donated cuttings. I really appreciate everyone's care in this matter. There looks to be some valuable plants among them which will be most welcome.

21 March

We (Russell Wait and Ken) "lifted" about 150 seedlings yesterday, there's more today if we can summon the energy levels required or free up the leg muscles. We found seedlings under several plants where I hadn't looked very hard, and that's on minimal rainfall for this germination. 'Twill all be documented in time. We have today only to finish what we can.

Photo below is a groups of weeds and Eremophila seedlings (left) and (right) the Eremophila seedlings after the weeds have been removed, and prior to potting. The concern is that they will die from lack of water if left *in situ.*





28 March

Since Russell left last Tuesday a.m. I have not even had time to go to the farm for follow up work on what we achieved out there. In summary, over two days we potted over 200 seedlings of about 40 species including seedlings from 6 presumed hybrids; up to 140 seedlings under one plant. There must have been a fire response but that's a report in itself.

We are a long way from having 12 month old seedlings to plant out but at least we have tried. Any left *in situ* are probably dead by now as we have had no more rain. I didn't even finish doing the cuttings he left until yesterday.

18 April

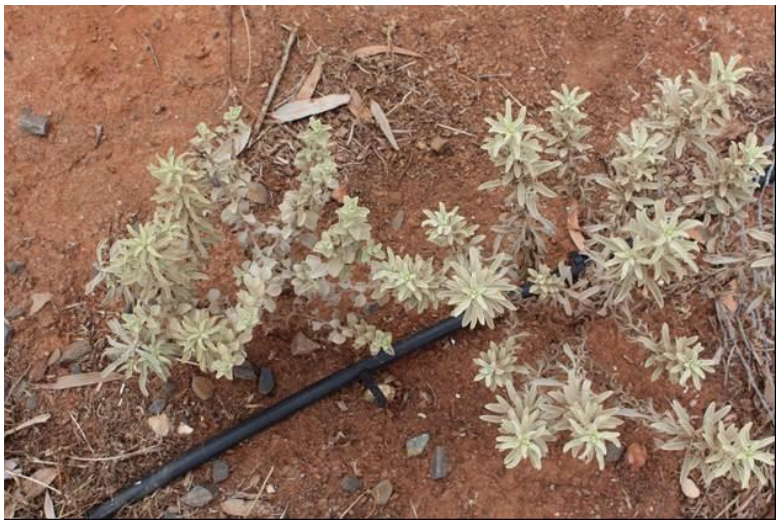
The Arid Lands plants delivered in March include quite a lot from the material several of you sent over following the fire. There's quite a few that I can use and the remainder will find good homes. I'm involved with the distribution of large numbers of plants to those affected by the fire and your plants will add to the range. It's amazing just how many have shot from the base and *E. spinescens* and *E. macdonnellii* are already flowering. Many have reached the stage where I can cut away the burnt sticks to reveal healthy young plants ready for a second bite at life. It's all being documented by records and photographs. A most interesting experience, it's just that the initial price was high.

I now have between 400 and 500 seedlings as an estimate with over 40 species or hybrids (e.g. *E. strongylophylla* suspected hybrid with *E. fasciata*, right; and *E. strongylophylla x E. macdonnellii* suspected hybrid, below left).

There's a fair chance that some of the hybrids will have a 3rd party involved so who can guess what will eventuate if we can grow them on.

24 April

Staying very dry over here. I would like to start planting as I have large numbers to go out. I'm spraying and cutting back dead or old plants in preparation. The patch looks a lot better but it's a huge job. The variation in seedlings at 2nd and 3rd leaves is frightening: what do you do with *E. strongylophylla* seedlings that have green and spade-shaped leaves or "Nullarbor Nymph" that are serrated on the margins???



What a job it's going to be, growing on, planting out and monitoring progress. As an indication of the likely scale of this task, at right is a sea of seedlings (from January 2014 – so not related to this fire) of *E. strongylophylla*, possibly hybridised with *E.*

fasciata (left and right) and *E. mackinlayi* (centre).

The *E. warnesii* which has appeared in the house garden at Owen is now 100mm high and has been joined by an *E. simulans ssp lapidensis*. However there has been no sign of recovery so far of *E. annosacaulis, E. alternifolia, E. bowmanii ssp bowmanii, E. caerulea ssp. caerulea, E. caerulea ssp. merralliidensifolia E. caespitosa, E. calorhabdos,* sundry *E. clarkei, E. clavata, E. complanata, E. cordatisepala, E. demissa, E. elderi,* sundry *E. georgei, E. glabra* forms, *E. granitica, E. homoplastica, E. hughesii, E. metallicorum, E.. microtheca, E. obovata ssp. glabriuscula, E. pubiflora, E. rigens, E. rigida, E. saligna, E. serrulata, E. setaceae, E. spuria, E. shonae, E. sp nov Mt. Jackson, E. subfloccosa ssp. lanata, E. succinea, E. vernicosa, E. viscida, E. warnesii, E. willsii* and several hybrids.

Of those showing recovery it would appear that cutting grown plants have performed better that grafted plants. This is not surprising because they have shown their ability to more readily produce new growth in the form of roots in the first place. Grafts with the union close to the ground have shown significantly better recovery than those with exposed stocks. All Myoporum species in the plantation suffered severe damage.

The table below summarises some of the results at 100 days – a later newsletter may report on remaining species more fully. It's not easy to be definite on direct burning vs. radiant heat, but it is at least some indication of initial "treatment" vs. results.

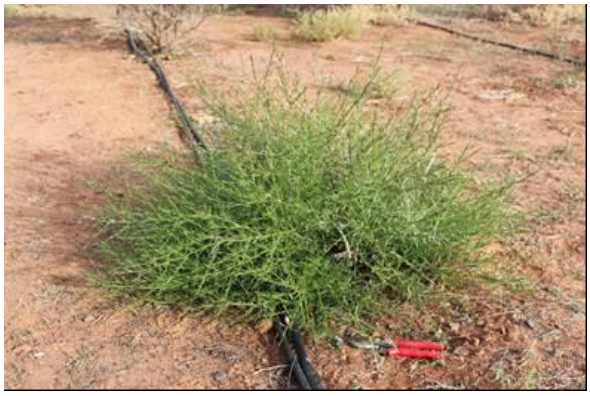
Selected Eremophila plantation recovery data at 100 days

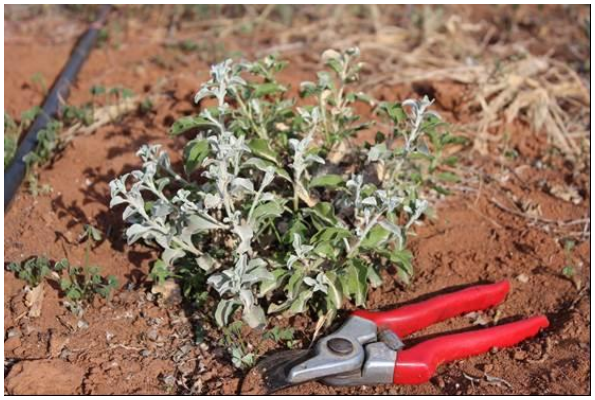
Species	**Predominant damage**	**Re-growth**	**Seedlings**
arenaria		From old wood at 60 days, then died	No
aureivisca	Radiant heat	Yes, canopy	No
battii	Direct flame	No	No
biserrata	Direct flame, partial	Yes after 100 days	No
caerulea ssp. merralli	Direct flame	No	No
clarkei	Direct flame	No	Yes
decussata	Direct flame	No	Yes
delisseri	Direct flame	Yes, basal	No
dendritica	Direct flame	Yes at 100 days	No
densifolia	Direct flame	No	No
divaricata	Direct flame	yes	No
freelingii		From old wood at 60 days, but died later	No
glabra Gawler prostrate	Direct flame, partial		No
granitica	Direct flame	No	Yes
homoplastica	Direct flame	No	No
latrobei ssp. latrobei			Yes, at 30 days
macdonnellii large leaf	Direct flame	yes	Yes
macdonnellii Simpson Desert	Direct flame	Yes at 60 days	No
macdonnellii small leaf	Direct flame	no	No
microtheca		no	No
Nullarbor Nymph	Direct flame	Yes	Yes, after February
obliquesepala		yes	Yes, at 100 days
ovata		Suckers	No

Picaninny Dawn	Radiant heat	Yes	No
platythamnos ssp. extrotrachys	Direct flame		Yes
psilocalyx	Radiant heat	Yes	No
racemosa	Radiant heat, partial		
rotundifolia	Direct flame	Basal shoots, juvenile foliage (adult foliage at 100 days)	No
saligna	Radiant heat	No	No
shonae	Direct flame	No	Yes
Sp. nov Mt Jackson	Direct flame	no	No
spinescens	Direct flame	yes	No
sulcata	Direct flame	No	Yes
Summertime Blue	Direct flame	Yes, basal	No
vernicosa	Direct flame	No	No
viscida	Direct flame	No	No
warnesii	Direct flame	No	Yes

Early May

Five months post fire the recovery continues – some faster than others. Below left is *E. Summertime Blue* and below right is *E. rotundifolia* photographed at the same time.





Weeds are starting to be a problem with some Eremophilas battling against them, as with *E. macdonnellii* at right. Seedlings which were dug up and potted are coming along – over page is a box of seedlings with those at either end from the January germination and those in the middle from February. Right hand side of the box come from *E. warnesii* and left hand side of the box from *E. mackinlayi subsp. mackinlayi*.

Post script – *E. acrida* from Stanley Chasm did indeed produce seedlings, they are below *in situ* (at the end of April).

This isn't the end of the report on the recovery of Ken's plantation from the Pinery Fires – we will continue to report as things change. Ken is also giving a first-hand account of the recovery on 8 June at the Para District ANPS meeting in Gawler.

As you might expect there are many more photos and I am hoping to get these uploaded onto the ESG website – keep a lookout there for them.

"WA form" of Eremophila barbata

From Ken Warnes: The "WA form of barbata" circulating in the trade is not from WA at all but is from a limited area on the lower Eyre Peninsula in SA in the Hincks Conservation Park and a single collection a little south of there. It grows on stony ground in what is essentially a park of gutless white sand, under mallee. This light shade may be why it is listed as growing to 1m but in cultivation I grow it as a low spreading shrub about 40mm x 1m. It a very attractive plant when given some room to move (photo at left from Ken's plantation, and flowers below). Bob Chinnock reports that it is a species which shows signs of being able to manipulate the size and habit by selection of propagating material: vertical growth keeps growing up, horizontal cuts grow outwards. "Yana Road" has the same characteristic. I suspect position has a bit to do with it also. Superficially it appears to be in the weldii group but it is actually related to behriana and crassifolia which both occur not too far away.

Antibacterial properties of Eremophila

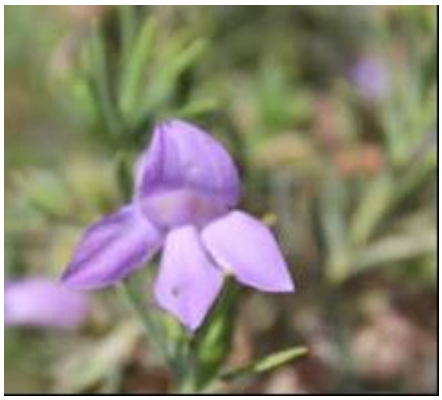
The Jnl of Ethnopharmacology has published an article on *Antibacterial constituents of Eremophila alternifolia: An Australian aboriginal traditional medicinal plant* in its 22 April 2016 edition. The authors, Israt Beva Israt J. Biva, Chi P. Ndi, Hans J. Griesser (a study group member) and Susan J. Semple, review the use of *Eremophila alternifolia* leaves, infusions and handmade leaf-pastes for infections of eyes, skin and wounds in traditional Aboriginal practice.

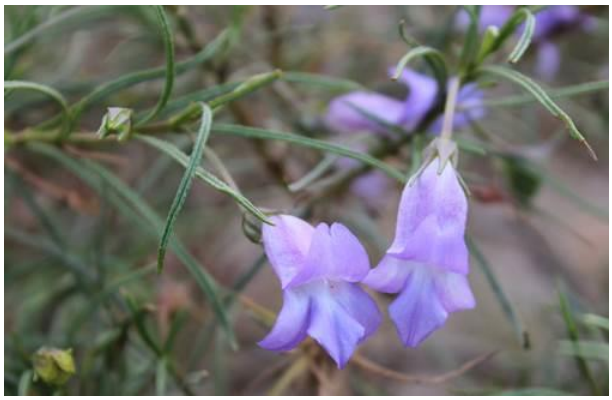
The study identified four anti-bacterial compounds, two of which were identified for the first time in this genus. One of these showed significant activity against

Staphylococcus aureus (golden staph) bacteria, which are one of those that are antibiotic-resistant and which cause such problems in our hospitals these days. The full article can be found at https://sfakianakismedblog.wordpress.com/2016/02/21/antibacterial-constituents-of-eremophila-alternifolia-an-australian-aboriginal-traditional-medicinal-plant-2/

E. gilesii vs *E. spectabilis ssp. brevis*

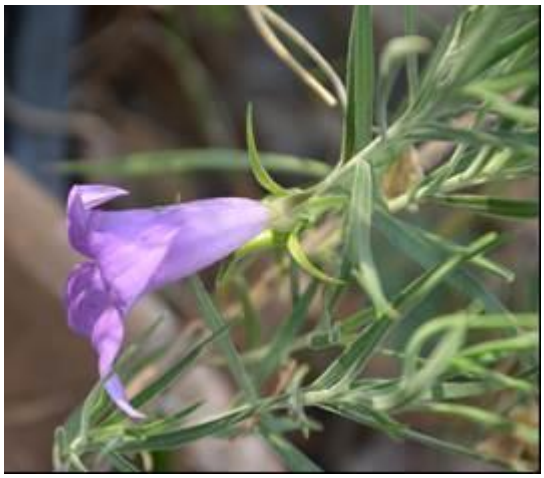
Ken Warnes explains the differences and similarities with *E. gilesii* and *E. spectabilis ssp. brevis*: They are very similar and the sepals are the only way to split them.[1]





E. gilesii (Charleville Turkey Bush) is found across SW Queensland, the southern part of NT, the northern part of SA and in a band across the same latitude of WA. The form from Queensland, above left, has broader, felted leaves, short straight pedicels and acute-lobed flowers. The form from central Australia and WA, above right, has narrower green leaves and long curved pedicels (pics by Ken Warnes). According to Ken, the Queensland *E. gilesii* from Ray Isaacson is one of the best Eremophilas for general planting, good shape, and beautiful big flowers over a long period.

To confuse matters further *E. gilesii* also has 3 outer sepals that are broader than the 2 inner sepals but they are not as broad or conspicuous as they are on *E. spectabilis*. Photos over the page compare sepals of *E. spectabilis subsp. brevis* (left, pic Lyndal Thorburn) with *E. gilesii* (right, pic Ken Warnes)



[1] However, *E. gilesii* is frost tender in the ACT and *E spectabilis* isn't – so that is another way! (Ed.)

Australian Cultivar Registrations

The Australian Cultivar Registration Authority has completed its Checklist of ALL native plant cultivars and this is now accessible on the APNI (Australian Plant Name Index) website at https://www.anbg.gov.au/acra/apni-cultivars.html. Many Australian Native Plant Society of Australia groups donated funds to help achieve this.

Any ANPSA Study Groups can apply to ACRA to register plant cultivars free of charge. The Study Groups can achieve this through their leader, who will be sent a Study Group log-on shortly, or members acting on behalf of the Study Group. Outside of the Study Group, individuals or organisations (e.g. nurseries) can apply to register a cultivar for $100 per application.

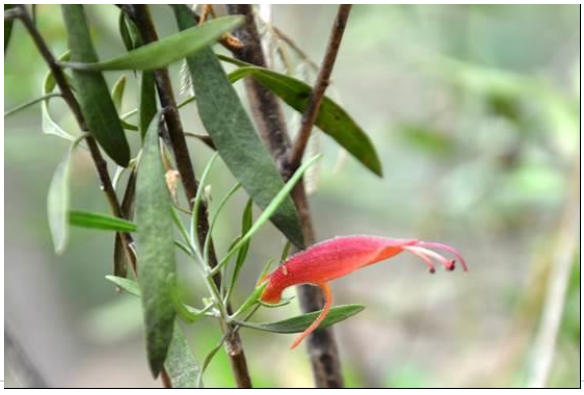
The Eremophila Study Group is the applicant for a number of Eremophila varieties which have just been registered by ACRA:

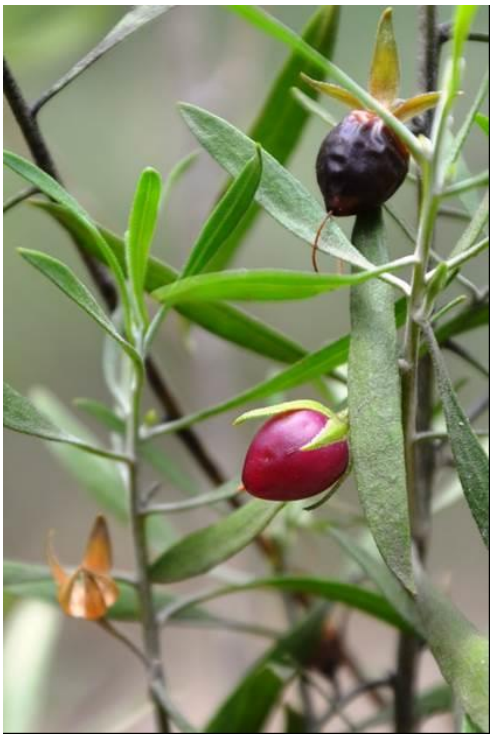
Eremophila Nullarbor Nymph
Eremophila biserrata hybrid Magic Carpet
Eremophila Beryl's Lipstick
Eremophila Summertime Blue
Eremophila bignoniiflora Meringur Midnight (thought to be hybrid with *E. viscida* – more on this in the next newsletter)
Eremophila Beryl's Gem
Eremophila Piccaninny Dawn

Details can be found on the ACRA web-site at http://www.anbg.gov.au/acra/acra-list-2009.html

Coloured fruit on Eremophila

Most Eremophilas have smooth green fruit which ages to brown wrinkled fruit. Ian Tranter provided Lyndal Thorburn and Tom Jordan with some plants from researcher Dr Carole Elliott, a researcher in conservation genetics (now in WA). Her experiment in germinating *Eremophila glabra ssp. glabra* produced some dozens of seedlings Which Study Group member Ian Tranter eagerly acquired and spread around local Canberra growers. One of these plants now in Lyndal's garden in Queanbeyan has produced very dark red flowers followed by small (~8mm) but very bright cherry red fruit – both shown here. Does anyone have any other examples of brightly coloured fruit on Eremophila?





Eremophilas online

Occasionally, the WA Herbarium's Facebook page has photos or albums of Eremophilas (https://www.facebook.com/WesternAustralianHerbarium). Find them by searching for "Eremophila" in the search box top left on their page. Ian Tranter has written noting that there was a collection of photos uploaded by Andrew Brown on 17 February 2016, and on 16 July 2015 Bevan Buirchall uploaded a photo of *E. attenuata*, "a rare Priority 1 taxon from near Menzies in the northern Nullarbor IBRA region". This species' photo in the Buirchall Eremophila book is of a dried specimen.

From your letters:

Ruth Griinke, Gowrie Mountain (Qld): We have had a very dry 2015 but since Christmas have had a tornado-like storm which ripped through my garden, uprooting 2 large casuarinas and large acacias and tearing limbs from the large Eucalypt in my over-40-year-old garden. So I am still finding plants that have not survived but it is starting to look better now. We have received good follow up rain and so we have a great crop of weeds and lawn.

We have grown Eremophilas for over 50 years and I am still keen. In the July 1985 issue of the Eremophila Study Group Newsletter there was a list of Eremophila that grow well in Sydney. Most of them grow well here (in Queensland) in our porous black soil; some like *E. weldii, E. polyclada, E. ionantha, E. oppositifolia, E. maculate, E. mackinlayi, E. macdonelli, E. longifolia, E. glabra, E. gilesii, E. divaricate, E. denticulata, E. biserrata, E. bignoniflora, E. alternifolia, E. paisleyii, E. dalyana, E Yanna Road, E. leipdota, E. sturtii, E. mithcellii and E. glabra Kalbarra Carpet* have all survived in my garden for 10-20 years but there have been many losses, besides these.

If I can get someone to come with me I hope to go west up past Boulia to a great stand of *Eremophila cordatisepala* that we found back in the 1990s. They have had good rain up that way so the western areas of the State should be good by June or July.

Liesbeth Uijtewaal (the Netherlands): Thanks a lot for the newsletter; it was very good to read! I'm very tempted to try *E. christophorii* now; it might do well under our conditions especially the white form. Something else: it was very interesting to find two species of Eremophila at the International Plants Fair (IPM) in Essen, Germany, last week: they were *E. nivea* and *E. glabra* (greenish/yellow flowered form). I've never seen Eremophila at the fair before nor anywhere else on the market. The *E. nivea* were not in flower but they were a very nice rounded shape and made very attractive plants with their furry silvery foliage.

Charles Farrugia (Sydney): In regards to the January 2016 wet spell, our area got only around 100mm of rain, so it wasn't too bad compared to other areas. Most of the Eremophila responded positively to the drenching, apart from the ones in the *E. willsii* group (Rainbow Beauty, Rainbow Gem & *E. prostrata*). These died back though new growth is now emerging. What amazed me is that I had some grafted tube stock that were sitting in individual larger pots with a little bit of soil in the bottom of the pot. These were covered over with a soft drink bottle and were placed in two foam boxes. The amount of root growth was incredible. Mind you one of the foam boxes had a few cm of water in it before I noticed and punched a hole in the bottom to drain the water out.

Hans Griesser (Adelaide): Much of my garden was burnt last January (2015) in the Sampson Flat bushfire (Adelaide Hills). Of about 70 Eremophilas, a few miraculously survived almost unscathed (e.g. 2 of 3 *E. lucida*) but most lost all their leaves even when they did not get singed by flames; at first the leaves turned yellow and then gradually dropped off. I left the sorry naked sticks until now (January 2016) to see what would shoot again. It has turned out that the radiant heat seems to have been too much for most of the smaller plants, but a few smaller and some of the larger plants sprang new shoots in spring. But overall, of about 70 plants, 50 died in that bushfire. It is difficult to establish a list of those that can survive and those that don't because in different parts of the garden they experienced different extents of flames and heat. But as a general observation, I have found that Eremophilas are much less likely to re-shoot than Hakea and Callistemon in particular (and Eucalypts of course).

Events

The **Qld group of the Eremophila Study Group** met on 16 April in Lowood with 16 members and four visitors present. The group shared out cutting material received from Norma Boschen and discussed three unidentified Eremophilas obtained from a collector's garden via Philip Vaughan. There is also active swapping of plants through a raffle. The next Queensland group meeting is to be in Warwick on **23 July 2016** and will include a garden visit. Contact Jan Glazebrook for more information (janglazebrook (at) gmail.com). The group organises its meetings well in advance in case any of you who are travelling want to coordinate to drop in!

The **Sydney group of the Eremophila Study Group** is meeting on **2 July 2016** at 12 Grandview Avenue Seven Hills NSW (home of Charles and Leonie Farrugia) commencing at 10am. The subject is "Keying Eremophila" and the session will be led by Peter Olde. For more information contact Charles at eremgenus4719 (at) hotmail.com.

The **NSW ANPS** get together this year is in **Tamworth, 19-21 August 2016**. One of the speakers in a full program is Anthony O'Halloran who is speaking on Australian native plants for cut flowers. Anthony is a keen grower of Eremophila and regularly contributes plants to the ANPS Canberra sale as well as selling them regularly at markets around western NSW. To register for the Get-Together, complete the registration form in the April issue of *Native Plants for New South Wales*, or contact Lee Esdaile at pjltesdaile (at) gmail.com.

The **ANPS groups in South Australia** have a biennial gathering, which this year is being organised by the Para Districts and being hosted at Angaston. While the event is not focussing on Eremophilas the organising committee is being chaired by Ken Warnes so don't be surprised if our favourite genus doesn't get a look-in somewhere – a look at the fire ground and recovery in Ken's plantation is currently planned for the Sunday. The event is for SA members only. For more information contact Ken Warnes.

The ANPS SA group also issued the plant list for its autumn sale (which will be done and dusted by the time you read this – it was held on 30 April and 1 May), at http://www.australianplantssa.asn.au/media/PDF/Plant_Sale_List.pdf. The plant list released claimed that there would be over 100 species and forms of Eremophila – if you want to be notified beforehand next time then get yourself on their mail list!

Possible ESG get together September 2017

If anyone in SA, NSW or Victoria is interested in hosting or leading organisation of a Study Group get together in spring 2017 can they email lthorburn (at) viria.com.au. Just a thought at this stage – whether we go ahead will depend on if one or more of you step up to take the lead (I will help, but being located in NSW means someone else needs to do the work "on the ground")!

Future Newsletter Themes

We have held over the item on ***Eremophila viscida***, to make room for Ken's journal. I have photos, but still need propagation information, including on the three hybrids in cultivation: with *E. maculata, E. miniata* and *E. bignoniiflora*. I am also still waiting hopefully for items on **keeping collected cuttings fresh and happy** while travelling.

About the Study Group

SUBSCRIPTIONS ARE DUE FOR 2016-17 IF YOU ARE NOT ALREADY CURRENT FOR THIS PERIOD. You have until 1 September to renew.

SUBCRIPTIONS

Subscriptions can be sent by cheque and posted to 3 Considine Close Greenleigh NSW 2620 or paid by direct deposit into the Group's bank account:

BSB: 105-125 Bank name: **Bank of South Australia**

Account Number: 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

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). 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 plants being studied and forward their observations to the leader who collates and publishes the information, usually in a newsletter or in other Society publications. The Study Group can record any aspect of cultivation, propagation and ecology of the plants under study. All Study Groups are expected to publish at least two newsletters per year.

Each Study Group charges a small fee to cover expenses such as newsletter production and postage, and to cover the costs of specific group activities. Members must also be members of an ANPSA-affiliated regional society (http://anpsa.org.au/region.html).

The 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. For information about the Eremophila Study Group contact Dr Lyndal Thorburn, Study Group leader lthorburn (at) viria.com.au Ph: 0418 972 438 or 02 6297 2437

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) (jlfountain5 (at) gmail.com)