Association of Societies for Growing Australian Plants EREMOPHILA STUDY GROUP NEWSLETTER No. 81

December 2003

Since the last Newsletter was prepared there has been a lot of activity. Charles Farrugia wrote to me several months ago advising that he was planning a get together for members of the Study Group who live in the Sydney area. The meeting went ahead and was attended by nine people, with a planned second meeting for February next. (More details further on in this Newsletter.)

The workshop planned for October, at the home of Russell & Beryl Wait, went ahead with an excellent gathering of 54 members, spouses and partners, together with five children. This was the largest gathering which we have had and it clearly indicates the enthusiasm of the members of the Study Group. For the first time we had representatives from each of the mainland states, including two from WA and two from Queensland. One question asked: when is the next one & where?

There has been a lot said and written about "waterwise" gardening in SA and no doubt the idea is also catching on in the other states & territories. A number of recommendations have been made regarding the types of plants best suited to gardens where there is a need to control, or limit the amount of applied water. It is interesting to note that the genus *Eremophila* has been receiving a number of recommendations from a diverse range of commentators.

From the letters I receive from you, the comments relating to the tolerance of your eremophilas to small amounts of water come through repeatedly. I am also aware that many of you promote the genus as one which has a wide range of species which in many cases are very forgiving when it comes to harsh conditions, especially after they have been given that bit of attention at planting time and for a few months afterwards. I encourage you to continue the crusade, although that is not as tough as it once was when people looked at us dumbly and asked "What are they?"

If you have paid me for subscriptions or other items since the last Newsletter was sent out you will find your receipt enclosed. I still have a few copies of Eremophilas for the garden as well as the Booklet of the first 31 issues of the newsletter for sale. There is also a small amount of Nescofilm® available – I can get more if it is requested.

A Few words about the colour page that was promised! I am still trying to get material together to do this. Since preparing the last newsletter I have been rather busy with a host of other things, not related to eremophilas and my time has been rather taxed. I shall do my best to arrange it for next issue. Sorry!

VALE PAM SHIELLS

It is with sadness that I have to report the passing of Pam Shiells. Pam died suddenly a few days prior to our workshop in Piangil. David & Pam had intended to travel to Russell's for the workshop and had in the past been active members of the Eremophila Study Group as well as being prominent members of the Victorian branch of ASGAP.

David, her husband, and she were well known for their excellent nursery in Shepparton. They moved to Violet Town further to the east in Victoria a few years ago and had established, once again, a well-credentialed nursery on their new property.

We offer our sincere condolences to David and family.

NATYA WORKSHOP

A special thankyou is extended to Russell & Beryl Wait for having us at their property at Natya. Since I started as Leader of the Eremophila Study Group we have held four workshops. The first in Adelaide to coincide with the ASGAP Conference held in Adelaide. The second was held in Victoria at Norma & Keith Boschen's property on the Saturday transferring to Maree & Graham Good's property on the Sunday. Our third one was at the property of Beverley & Ian Rice at Dutton in South Australia.

At each of these gatherings we had a greater number attending and at our latest one we had a total of 54 members, together with wives & partners. It was also great to see a number of children attending with their parents – they especially enjoyed the dinner on Saturday night when the sweets course was presented.

An enthusiastic welcome greeted Bob Chinnock when he presented the after dinner presentation on Saturday night. Bob chose the topic, "Eremophilas Past, Present & Future." He looked at the history of the eremophilas, from the very first description right through to those of recent discovery. Bob chose the various botanists who had described eremophilas and showed a selection of slides to illustrate the plants which they were responsible for publishing data on. He concluded with a number of unpublished species which will represent a significant proportion of those to appear in the yet to be published work.

(On the matter of the publication of "Bob's Book", the publication date which is so often sought, Bob advised us that the manuscript has been refereed and now the publishing is to be put to tender. He also pointed out that, contrary to what a number of people would wish, the book is not a "field guide to eremophilas" nor is it going to be a book of coloured pictures to which one can refer to get an identikit match of the plant we are trying to identify. The volume will be approximately 900+ pages and covers the entire family of Myoporaceae, native and exotic.)

Most arrived in Tooleybuc, about 20km from Russells' place but on the NSW side of the R. Murray, on Friday afternoon. He had arranged with the local pub for us to meet there for dinner – an opportunity to meet with old friends and to make new acquaintances.

On Saturday morning we met at Russell's place, the weather was magnificent, even on the hot side. For the first 45 minutes we viewed the selection of eremophilas which he has growing around the house area. These are some of the earlier plantings, interspersed with more recent collections. After morning tea we went for a somewhat longer walk to a site amongst the wheat fields – here Russell has ripped the soil and planted his eremophilas into these lines, supported by drip irrigation lines to supplement the water. Many of these eremophilas have been recently planted with some several years old. One problem which the plants have to contend with is the sometimes severe frosts. Evidence was seen of several which had hit the area in recent times – even the adjacent crop was showing some signs of white tops, although it would appear that there was not going to be too severe a decrease in the yield.

A number of plants which had been frosted were starting to show significant new growth from the stems close to the ground. It seems as if these stems are able to resist the effects of the frosts and the buds along their length are able to shoot again when the conditions are right. Some species are not so adaptable and they had clearly succumbed.

After a hearty lunch, supplied by the local Uniting Church Ladies Guild, we started our workshop sessions, with two of our members Ray Isaacson & Peter Hall showing us how to graft eremophilas. At the same time we were entertained and educated in the art of 'Floral Arrangements Using Eremophilas' by Jocelyn Lindner, who 'volunteered' after I rang her two nights prior to the workshop. I am glad I did 'bend her arm' since her presentation was superb. It would have been repeated on the Sunday had it not been for the fact that she was required to return to their property on Saturday night – the sheep needed to be loaded for transport on Sunday morning.

The second workshop session for the afternoon saw Ray, Ken Warnes & Norma Boschen demonstrate their grafting techniques. Russell showed how to collect specimens and prepare them for postage from the field, or between members. He also explained how to prepare specimens for pressing to produce herbarium specimens for future reference and as vouchers. Before closing the afternoon activities we swapped our cuttings. A huge selection was spread out over two trestles and the 'feeding frenzy' took about twenty minutes to die down. Hopefully there will be a lot of this material reappearing as plants, either from cutting-grown or as grafted plants. This way we can ensure that more of the less common species can be distributed amongst our members.

Dinner followed at the Tooleybuc Sporting Club, albeit a little late due to the late arrival of the bride. Let me explain! We had booked the Burgundy Room and the wedding reception was in the large adjacent room. The only problem was the chef and his team had to serve the wedding guests first, then they attended to our needs, which were significant when he finally arrived about 45 minutes after our scheduled start. The wait was well rewarded, the food was extra special. The children certainly enjoyed the ice cream and the pavlova. I think that they even enjoyed the main course – not common amongst children these days.

Waking about 6am to the sound of rain suggested that we were in for a damp Sunday session at Russell's. We arrived at the farm about 8 to scenes of Russell and several others loading trestles & seats on to the tray-tops to be transferred to the Natya Hall, next door. By 9 we had all the seats etc. arranged and the sale of Ray Isaacson's grafted plants was already in full swing from the back of one of the tray-tops. The rain was light but of real nuisance value.

A quick rearrangement of the programme was necessary – we held the forum first. It had been planned to be the last item on the schedule, later on in the day. There were a number of questions asked and Bob Chinnock was targeted by most of them – special thanks to Bob for taking them in his stride and presenting answers which we could all understand.

The rain eased and so, after morning tea, we walked back to Russell's to view his smoke generator. Here we were shown how to check for the presence of seed by splitting the seed capsule lengthways, starting from the base. Russell, with Bob's & Ken's help, spoke about the seeds and fruits of eremophilas. He then fired up his smoke generator. It is a bit hard to describe the system – you have to see it to believe!

Lunch followed back in the hall, by this time the rain had eased and we were starting to enjoy the sunshine. The final session was rather light in numbers since quite a few members who had significant distances to travel home decided to leave after lunch. For those who stayed, Russell repeated his demonstration of specimen preparation and packaging for postage; Colin measured the pH of several soil samples and those who wished to avail themselves of the opportunity took advantage of the offer to do some more hands on grafting.

By 2.30pm we had finished yet another Eremophila Study Group Workshop. Colin thanked the members for their involvement during the weekend, especially those who had helped at mealtimes and those who had volunteered to conduct workshops. He proposed a special vote of thanks to Bob Chinnock for once again giving so generously of his time and his expert knowledge and offered a special thankyou to Beryl & Russell for their hospitality.

Another very successful workshop was over!

Colin Jennings

SYDNEY WORKSHOP

Congratulations to the small band of Study Group members who met in Sydney recently.

Some months back, Charles Farrugia contacted me about the possibility of members of the Eremophila Study Group, in the Sydney area, meeting to discuss eremophilas. I advised him that as far as I knew there was no barrier to this happening and he went ahead and organised a meeting at his home and invited growers of eremophilas from the Sydney area to attend.

Charles can be contacted by email clpfarr@tpg.com.au or by phone (02) 9636 6289.

The result was a gathering of nine existing members of the Study Group and another who joined immediately after the meeting. Unfortunately Brian Walters was unable to attend.

Charles sent an agenda to me before the meeting and I have since received a summary of the events of the day together with a copy of minutes prepared by Gordon Brooks. It appears that they had an enjoyable and worthwhile day.

They have planned another meeting for Sunday, 15th February at the home of Ian & Tamara Cox, 5 Ivy Place, Kenthurst, commencing at 10am. They plan to have three meetings per year: these will be on the **third Sunday of February**, **June & October** at the homes of members.

At this meeting they plan to look at:

- propagating plants from seed, cuttings & grafting techniques
- growing from cuttings of different lengths & the significance of the depth of containers used
- How do we graft plants?
- Failures & successes

Please bring a packed lunch, chair, mug, cuttings and other items thought relevant.

From the minutes of their meeting the following is a relevant extract:

"We are interested in attracting more Society members to join this Study Group because we believe that eremophilas can be grown in Sydney and are particularly suited to the dry conditions which we have experienced here over the past few years."

Members present were asked to comment on their experiences, both failures and successes, for it must be pointed out, Sydney offers a wide diversity of conditions across its limits. It was agreed that the quality of the soil is the key to the success of growing eremophilas in Sydney.

Most obtained their plants from nurseries and from cuttings exchanged between APS members and the Study Group. Seed was not a popular option.

Also from their meeting several questions were raised which could be of general interest to all members and not just local interest.

- 1. When buying eremophilas from nurseries, check the mixture and if in doubt repot as some mixtures used are not suitable for eremophilas.
- 2. When ordering by post from nurseries make sure to mention the height of the plants wanted.

3. Information was sought relating to:

threatened species
rare/endangered species
cultivars
hybrids
eremophila root systems – how far do they go?

{Re the information sought, perhaps there are some amongst us who could add some light. I know that Ken Warnes is looking at compiling a list of hybrids and at the workshop held at Russell Wait's property he was seeking information from members present – this is an ongoing request from Ken. Details can be sent to me and I will pass them on to Ken. Colin}

FROM YOUR LETTERS

Beverley Rice - Truro, South Australia

..... would it be possible to write up a description of the various forms of *E. glabra* which are in cultivation.? There are some very strange names appearing! Even to a small leaved, grey form with a small, lime-green flower labelled as "*E. glabra* – brice", which I have seen in two nurseries. Maybe it is correct, but I think it came from our garden, thus the B. Rice has become Brice!

Unfortunately I have no idea of its origin, maybe it came from Tony Clarke. This particular *E. glabra* is now about 200ml high by 2m across.

If a brief description could be written up maybe we would become more familiar with the correct names instead of the usual "Oh, yes, that's just another green (or grey) E. glabra." Am I asking too much?

Another question E. drummondii & brevis. Which one is it? I have three types.

- 1. The broader leaved type 300mm high by 1m wide. Mainly spring flowering but always a few flowers to be found. It is a great border plant.
- 2. Similar to the above with brighter green leaves, smaller and closer together. It is flowering now (Aug 29th), with masses of flowers for about 3 weeks then it does not produce another flower for twelve months.
- 3. Upright, fine leaved form, 1-1.5m tall; spring flowering and just starting now (Aug 29th) with masses of blue flowers.

On another note – my *E. maculata* grown from seed collected at the Morgan site is flowering. It has clear, bright yellow flowers with NO spotting.

(When members visited the Morgan site, as part of the previous workshop held at Beverley & Ian Rice's property at Truro, we found a number of different colour forms of *E. maculata*, including several bushes yielding pure yellow flowers. Quite a lot of fruits were collected and several members have reported that they have had some success with the raising of seedlings from the seeds. Colin)

Ruth Griinke - Toowoomba, Queensland

We grow many species of eremophilas in raised beds and also in our porous, black soil: all are doing well. I grow a lot from cuttings with varying success. We are still waiting for a change in the weather, for most of southern Queensland. The spring season has not started well, it has been quite hot and dry.

Barbara & David Pye - Bullengarook, Victoria

David & I started our garden here more twenty years ago. We have a large area of very well drained volcanic, acidic soil. The average rainfall is 570mm, but much less in the past few years. We are at an altitude of 500m in southern Victoria. Quite early on we thought of trying some eremophilas and were advised that *E. maculata* was the easiest to grow. We tried a few forms in various aspects and all failed to thrive.

Twenty years later we are trying eremophilas, but with different species. *Eremophila maculata* is still a problem for us: many forms fail to thrive. Others seem to be favourite food for rabbits and only a purple (or blue) form is reliable, growing to a small bush about 1m high and flowering reasonably well.

We have had much more success with *E. glabra* (all forms tried), *E. drummondii*, *E. nivea*, *E. nivea* x *E. drummondii*, *E. oppositifolia* x *E. polyclada*, *E.* 'subteretifolia', and are now trialling more species & hybrids. Of course, with the cooler climate here, growth is not as vigorous as in warmer climates.

We are particularly keen to hear the results of other members who are trying to grow eremophilas in a cold climate. Is it possible that our failures with *E. maculata* relate to the acidic soil, or is it just the cold climate? During the warmer months we have experienced no difficulty propagating eremophilas for our small nursery. Eremophilas grow very well in the nearby towns of Bacchus Marsh & Melton, which are at a lower altitude, have lower rainfall, a warmer climate and generally higher pH soils.

With quite severe water restrictions in force at present in our area, we are happy to recommend eremophilas for a good floral display in dry conditions and are eager to keep trialling different species.

In nearby Darley Park, in Bacchus Marsh, many eremophilas have been thriving for some years. Some are grafted specimens whilst others are growing well on their own roots. The following species have been identified there: *E.* 'perglandulosa', *E. pantonii, E. miniata, E. alternifolia* (short leafed form), *E. platycalyx, E. spectabilis, E. abietina* var. 'ciliata', *E. duttonii, E. delisseri, E. glabra* (forms), *E. drummondii* (forms), *E. nivea* x *E. drummondii*, *E. weldii, E. dempsteri E. calorhabdos, E. bignoniiflora* x *E. polyclada, E. maculata*

Jan Glazebrook - Logan Village, Queensland

We have had a very dry, warm winter and spring and most of the eremophilas have done well, especially the grey-leaf ones such as *E. nivea*, *E. obovata*, *E. bowmannii and E. macgillivrayi*. We have had about 50mm of rain in the past few weeks which are needed as we are buying water. I have been using bore water with 3000ppm of salts and a pH of 8.5. The soil pH is 4.5. Most eremophilas are grafted onto *Myoporum acuminatum* which is local in the Brisbane area and they show no adverse reactions to the bore water, unlike some other native plants. Even *E. maculata* on its own roots doesn't mind the saline, bore water.

I also want to warn every eremophila grower about the Mexican Lantana Bug (*Aconophora compressa*). This small insect was imported and released in Queensland to help control lantana. However, the bug has found several other plants more to its liking and eremophilas are one of these.

The insect lays its eggs in the bark of semi-matured wood and makes a sticky mat on which it sits guarding its eggs until they hatch. This usually results in the death of the branch and, if left unchecked, could eventually kill the plant as numbers increase. They usually breed in winter in Brisbane and, according to DPI, three consecutive days with temperatures in the mid-thirties will kill them. So far this has not happened. I have found this pest on *E. viscida*, *E. bignoniiflora*, *E. nivea* and their favourite, *E. bignoniiflora* x *E. polyclada* (Big Polly).

So I would like to warn anyone, before taking plants or plant material from Queensland to inspect them thoroughly for insects or sticky egg patches on the stems. The adult insect is about 3mm tall and 10mm long and looks like a rose thorn as it sits still on its egg patch.

Other plants attacked are Duranta, Fiddlewood, Roses, Hibiscus and Myoporum, but I have only seen it on eremophilas in my garden. Confidor® is the recommended spray for killing the Mexican Bug, but it needs to be used as soon as they are spotted as they breed and multiply quickly.

CHANCE CHIMERA FORMED

(The following article has been sent by Russell Wait, following our visit to his property for our Study Group weekend. The plant in question was shown and questions asked about its origin and the cause of its appearance.)

I have had an Email from Bob Chinnock about the odd *Myoporum insulare* and it is called a chimera. A chimera is a plant which "forms from tissue of two different forms or species, usually originating at a point where one form has been grafted onto another, and showing parts of each parent – a graft hybrid – or artificial fusion of unlike tissue – an organism composed of two or more genetically distinct types of tissue."

Bob has written "apparently this can occur in plants when grafted, where the 'new' plant has genotypes of both plants."

"In this case the epidermal layers of the *Eremophila* sp. have merged with the rest of the *Myoporum* sp. giving the stellate plant – fascinating. I would therefore expect that the sepals will be tomentose too and it will be interesting to see if this feature extends to the corolla and the fruit too."

The tomentose effect does not extend as far as the outside of the corolla.

The plant which was used as the root-stock was Myoporum insulare and the graft was E. hygrophana (a seedling that came up in my garden after a summer rain). The 'sucker' which came up from the graft was grey; it is now flowering and is blue, but only the size of the flower of the M. insulare parent, being a bit more tubular. The graft was done by my friend who used to be a member of the Eremophila Study Group when it first formed: he lives just outside Geelong in Victoria.

The graft was done about two years ago and it still has both the *E. hygrophana* and the odd *M. insulare* or chimera growing on the common root-stock.

The original plant, with the chimera, is still growing, but the chimera is starting to take over. Three plants have been propagated from the original chimera and the one I have is starting to flower.

Further information will be presented in future as it becomes available.

CHIMERA

This interesting feature displayed by the plant which Russell has growing has prompted a bit of research. This is summary of some of the information which Bob Chinnock has provided.

In plants we can create chimera artificially. This act is accomplished by grafting. If the bud of the scion breaks in the early part of its growth (hilum), it is possible to create a new bud at the same area, in which the tissues of the root-stock and the scion are common. The obvious example of this is grafting lemon and orange, which leads to the production of a plant which has some of the tissues of the lemon genotype and some of the tissues of the orange genotype. The fruits of such a tree may, on its surface be similar to a lemon, but its inner flesh is similar to the orange or vice versa.

Chimera in plants is normal. Piebald plants such as Piebald Box trees, Piebald Maple trees (striped) which have two-coloured leaves are in this group. The genotype of the margin of the leaf which is yellow is different from the genotype of its central part which is green. Ornamental Sanseveria is also a chimera plant. The long and sword-like leaves have a yellow margin while the center is green. Interestingly when this plant increases by seed (sexual multiplication) both genotypes transfer to the new plant, but when the leaf is cut and propagated in soil (asexual multiplication) only one of the genotypes transfers to the new plant and all the leaves of the new plants are green. With this circumstance it is clear that Sanseveria is created by two kinds of different and separable genotypes, as if the two different plants live together in a symbiotic manner. One of the plants is yellow; the other is green and is separable. That is, the tissues of these two plants in Sanseveria are together and have no mixture.

RUSSELL'S TRIP TO WA AUGUST 2003

We started off with a short time with Ken & Graeme Warnes for a trip through a bit of SA and into the Great Victoria Desert. On the Trans-continental line we found *E. arachnoides* subsp. *tenera*. It is a broom-like bush, 2.2m high by 3.5m wide, with dark foliage, but the new foliage is a grayish colour and shorter than subsp. *arachnoides*. Not much in the way of flowers found, and pale blue on any that were to be seen.

Eremophila delisseri was found on the Nullarbor Plain. There were eight magnificent plants out in the open and which could be seen from a long way off. They were in full flower, a good blue, hiding the small grey foliage. They were bushes 1.5m high by 2,0m wide. Hopefully we can get it growing; it was magnificent.

A form of *E. maculata*, found on the Nullarbor was found with unusual purple foliage, but the flower wasn't as good as most.

We left the Warnes and continued on our way to WA, where it was mostly dry until we reached the cropping country. One plant of *E. hillii* was found in this area last year, which was new recording for the species. This year I found fifteen in a new location about 50km away, still in WA.

On a breakaway we found *E.* 'aurivisca', a 1.3m high by 1.0m wide shrub; it had been higher but for having been burnt some time ago. It has fine leaves that are sticky, with purple to blue flowers, with large calyces to add to the beauty. There was also a pure white one there with pure white calyces. Two hybrids with *E. oppositifolia* were also growing there. Out to inspect the eremophilas there was a Thorny devil.

After that I managed to lose my plant press with all of the previously collected specimens inside.

Eremophila 'annosocaule', a low bush, 0.8m high by 1.1m wide had fine, green leaves, with attractive blue flowers. It was growing in a breakaway with some mulga.

Eremophila 'campanulata', not to be confused with E. 'complanata', (this has pink flowers on a tall, open bush). E. 'campanulata' is a low bush, 0.2m high by 0.5m wide, with small leaves and a blue to pink flower, but only about 3 flowers were found. The entire area was very dry and it was hard to find good material.

Eremophila 'pensilis' was found at a number of sites. It is a grey bush, 1.5m high by 2.0m wide, with blue flowers. The first couple of sites had very few flowers and it was mainly growing on stony slopes.

Eremophila 'pallida' is an open greenish bush, 0.3m high by 0.5m wide. It produces blue flowers and the stems are a pale colour. I was told where I could find this species, but at this site it was mainly bundles of sticks. I did find it at a number of other sites and in better condition.

Eremophila 'pilosa' was growing in open, grassy, flat country and was very hard to see. The grey, hairy bushes, 1.1m high by 1.5m wide, carried blue flowers.

Eremophila 'coacta' grew mainly on the tops of hills, but could also be found lower down near the base. It grows as a very open shrub, 5.0m high by 3.0m wide, with blue flowers.

Eremophila 'demissa' (?) was found in poor condition. I had collected it in 1996 not far from this site. It was found as a low, blue flowered shrub, 0.4m high by 0.4m wide, in an open situation on flat country.

Eremophila adenotricha was found growing under large eucalypts and in clumps, so it was hard to tell the width of most of the plants there. The short-lived, green leafed plants measured 1.5m high by 1.3m wide. Flowers were blue.

Eremophila lactea was found growing on the roadside. They were all young plants, 1.7m high by 0.5m wide, with green leaves and had blue flowers.

Eremophila aff. *decipiens* were very young plants growing after a bushfire. They were 0.5m high by 0.6m wide. The leaves were lush green and the flowers were green, on long, up-curved peduncles.

Russell Wait

EREMOPHILA STUDY GROUP WEEKEND - NATYA

Ken & I went to the Murray and had a weekend at Tooleybuc (actually over the border into NSW). The workshops were at Russell & Beryl Wait's property at Natya.

We arrived on the Friday night and were met at the local pub at 6.30 for a counter tea. There were 54 attending from as far away as Perth, Melbourne, Goomeri (Q), Adelaide and Yarawonga. We were introduced to everyone during the evening meal and the gathering enabled us to put faces to names we had become familiar with through the Study Group presentations. They all proved to be a friendly lot, with our conversation centering on the citrus growing up on the Murray, as Beryl Wait graft buds the orange trees for a local orchard and she explained why we should buy citrus trees suited to our soil and not from a nursery that does not understand the importance of matching a species to conditions.

Next morning, after breakfast on the banks of the Murray we drove out to the farm where the first garden walk was to take place at 9.30. The Eremophila Study Group consists of many keen seekers of un-named species in the wild. The group has members who for thirty years have searched 'out of the way' places in the inland of Australia, off the beaten track for plants that have not been botanically described before.

Their aim is to bring cuttings back and share them with as many people as possible to get them grown and named. They have realized that the most reliable way to get the plants growing is to graft them. Thus Russell's property was planted with an abundance of *Eremophila* plants that had not been heard of before by many of us.

The plants on his property have to tolerate frosts, but otherwise the conditions seem to suit eremophilas very well. Everybody was fascinated with the range of plants to be seen and it was interesting to hear the experts discuss the parentage of hybrid plants and the different forms. The property had the most beautiful, big, shady trees for us to retreat to out of the heat, and this is where the local church ladies provided us with lunches & teas.

After lunch Jocelyn Lindner showed us how to do some simple floral arrangements using native plants, including eremophilas, I am keen to try this when I am home; she made them look so easy and beautiful.

Then we went to workshops on grafting techniques. Ken was keen to see Ray Isaacson's style as he seemed to be the master at grafting. He inspired Ken who was motivated to try some when we got home.

The evening session was at the Tooleybuc Sports Club with Dr Bob Chinnock, the botanist from the Adelaide herbarium, the after dinner speaker. This was a fascinating evening as he was an excellent speaker and he has been conducting a revision of the genus. He told us of the history of the botanical registration of eremophilas through from the first discoveries by early botanists and explorers. He even had overhead transparencies of the very first pressings and descriptions and the naming that later became changed. It was originally thanks to von Mueller who gave the eremophilas their name! There are now about 130 new ones ready to be registered thanks in part to the Eremophila Study Group's activities.

Sunday morning was wet (a distinct contrast to the previous day) and luckily there was a community hall right next door to Russell's property. We began the day in the hall under shelter. To eremophila fanatics the most exciting thing was the back of the truck, full of Ray Isaacson's grafted plants for sale. These were enthusiastically snapped up by all, as they are plants that are not in nurseries and not well known. We bought plenty and are now quite proud of our eremophila collection.

There was a question time and Bob Chinnock was asked about the development of eremophilas. He said that they are a relatively new species (5 million years old – that's comparable to the last time Tower Hill erupted) and are still developing and that is why there are so many variables with the plant and he also talked about their molecular development. A near plant relation is the penstemon, a genus of the northern Americas.

The weather cleared and we walked down to the farm where Russell showed us how he plants seeds and treats them to break the dormancy using his 'smokery'. This was set up in a huge, old, metal skip. He has shelves in it to cope with quite a few trays at a time.

The next workshop session dealt with the care of cuttings taken in the wild and Russell showed us how they are sent back from the field to other growers. Cuttings are carefully wrapped in newspaper that has been sprayed with a fine mist of water and then put into green vegetable plastic bags (not snap-lock plastic bags etc. as these do not let the cuttings breathe.) He also showed how to make pressings of the plants found, so that they can be taken back for botanists to identify at a later time, Russell pointed out the need to keep accurate records of locations, soil and vegetation in the immediate area as well as the date of collection – all very important for future research.

Cuttings were freely shared, as the aim of the Study Group is to encourage as many growers of eremophilas as possible. This exchange of material ended a very enjoyable and worthwhile weekend for us. It renewed our enthusiasm for these lovely plants that are quite hardy, even down here in our southern coastal environment.

Gwen Bakker Tower Hill - Victoria

(This article was prepared by Gwen for her local APS group's Newsletter when she returned from the workshop.)

EREMOPHILA HYBRIDS

I have not heard from any member of the Study Group about them – if you have any information as requested in Newsletter #80, please get it to me asap. I would like to work on this for the April issue next year!

ASGAP Eremophila Study Group Leader Colin Jennings, 4 Kinnaird Crescent, Highbury, South Australia 5089 Email address: colmyr@senet.com.au

EREMOPHILA STUDY GROUP - NEWSLETTER INDEX NUMBERS 69 - 79

abietina	69:2; 71:6; 72:4; 77:3; 77:4; 79:4; 79:5;
abietina subsp. abietina	77:7;
'acrida'	77:6;
alatisepala	73:6;
alternifolia	69:2; 70:3; 71:5; 72:2; 72:6; 72:2; 74:4; 77:7;
alternifolia x M. platycarpum	78:4;
arachnoides subsp. arachnoides	78:5;
arachnoides subsp. tenera	78:5;
'arbuscula'	73:6; 73:8;
'arguta'	73:6; 75:1; 75:2;
barbata	72:6 78:2; 79:3;
battii	70:2; 71:6; 78:5;
behriana	79:3;
bignoniiflora	72:5; 72:6; 77:3;
bignoniiflora x alternifolia	77:3; 78:4;
bignoniiflora x polyclada	72:5; 74:3; 78:3; 78:4;
biserrata	69:3; 70:2; 74:5; 77:3;
bowmanii	72:4; 72:6; 77:4;
bowmanii subsp. latifolia	77:3;
caerulea x Diocerea violacea	.78:4;
'caespitosa'	73:6;
calorhabdos	70:4; 71:6; 72:6; 73:2; 77:3; 79:5;
'campanulata'	73:2; 79:3;
'caperata'	73:6; 78:5;
'canaliculata'	73:6;
carnosa = E. glabra subsp. carnosa	71:6;
chamaephila	74:5; 77:4;
christophorii	69:2; 72:3; 72:6; 77:2; 77:3;
christophorii x pantonii	78:4;
'citrina'	73:6; 77:7; 79:5;
clarkei	72:6; 78:5;
'clavata'	73:6;
compacta	71:6; 73:2; 77:7;
'complanata'	70:2; 71:2; 79:4;
'congesta'	75:2;
'conglomerata'	73:6;
cordatisepala	72:7;
crassifolia	70:2; 79:3;
'crenulata'	77:7;
cuneifolia	73:6; 79:5; 79:6;
debilis	73:2; 74:3; 74:6;
decipiens	72:6; 73:2; 74:3; 74:5; 77:3; 77:4; 77:7; 78:3; 79:4;
decipiens subsp. 'linearifolia'	70:2;
'decussata'	75:2;
'decussata' x caerulea	78:4;
delisseri	78:5;
dempsteri	72:6; 73:3; 74:3;
'dendritica'	78:5;
densifolia	70:4; 71:1; 77:4; 79:3;
densifolia subsp. 'pubiflora'	71:6;
denticulata	73:2; 77:3; 79:3; 79:4;
denticulata subsp. glabra (?)	70:2;
desertii	77:5;
dichroantha	70:2;
divaricata	72:2; 72:6;
divaricata x nivea	79:7;
drummondii	70:2; 70:4; 71:2; 73:2; 74:5; 77:3; 77:4; 78:3; 79:5; 79:6;

```
drummondii x nivea
                                         70:2; 70:4; 71:1;
 duttonii
                                         71:6; 74:4; 76:1; 76:2; 76:3; 77:7; 79:4; 79:8;
 duttonii x maculata
                                         77:6;
 elegans = E. glabra subsp. elegans
                                         71:3:
 'enata'
                                         70:2; 74:7; 77:4; 79:5;
 eriocalyx
                                         72:3; 74:5; 78:5; 79:5;
 exotrachys = E. platythamnos subsp.
                                        77:7; 79:5;
 exotrachys
 falcata
                                         71:6; 73:6; 75:1; 78:5;
 'fallax'
                                         73:7;
 'fasciata'
                                         73:7; 79:5;
 'flabellata'
                                         73:7;
 'flaccida'
                                         73:7;
 foliosissima
                                         77:7; 79:5:
 forrestii
                                        71:6; 72:4; 75:1; 78:5; 79:4;
 fraseri
                                        70:4; 71:1; 73:2; 78:5;
 fraseri subsp. 'galeata'
                                        73:7; 73:8;
 freelingii
                                        71:6; 72:6; 73:6; 79:1; 79:7; 79:8;
 georgei
                                        70:4; 72:6; 77:7; 79:5; 79:6;
 gibbifolia
                                        77:4: 79:3:
 gibsonii
                                        71:8;
 gilesii
                                        71:6; 77:4; 78:5; 79:6;
 glabra
                                        70:2; 70:3; 70:4; 71:1; 71:3; 71:6; 72:2; 72:6; 73:2; 74:2; 74:3;
                                        74:4; 74:5; 74:6; 77:2; 77:3; 77:4; 78:5; 79:4; 79:5; 79:7;
 glabra "Kalbarri Carpet"
                                        77:2; 78:4; 79:6; 79:7;
 glabra subsp. albicans
                                        71:3; 73:7;
glabra subsp. 'carnosa'
                                        72:6; 79:6; 79:7;
glabra subsp. denticulata (?)
                                        78:4:
glabra "Mingenew"
                                        79:7;
glabra subsp. viridiflora
                                        70:4; 78:5;
 'glandulifera'
                                        73:7; 77:7; 79:5; 79:6;
glutinosa
                                        73:7;
granitica
                                        70:4: 71:7: 77:4: 79:6:
hillii
                                        78:5;
'hispida'
                                        73:8;
homoplastica
                                        73:7; 78:5;
hughesii
                                        73:7; 78:2:
'hygrophana'
                                        75:1: 75:2:
inflata = Calamphoreus inflatus
                                        74:5; 77:3;
interstans
                                        73:3; 73:8; 79:5;
ionantha
                                        70:4; 73:2;
'iucunda'
                                        73:7; 73:8; 79:6;
laanii
                                        77:3; 72:3; 72:6; 77:7;
'labrosa'
                                       79.7:
lachnocalyx
                                        79:3;
latrobei
                                        71:7; 74:5; 77:4; 78:5; 79:4; 79:5;
latrobei x gilesii
                                        78:4:
lehmanniana
                                       73:2;
linearis
                                       73:7:
Iongifolia
                                       70:4; 71:7; 72:2; 74:4; 74:6; 79:4;
'lucida'
                                       73:7; 73:8; 74:3; 74:7; 78:1; 78:2; 79:6;
macdonnellii
                                       70:4; 71:2; 71:3; 72:6; 77:3; 77:5; 77:7;
macqillivrayi
                                       79:4;
mackinlayi
                                       72:4; 72:6;
'macrantha'
                                       79:7;
maculata
                                       69:2; 70:2; 70:4; 71:2; 71:3; 71:5; 71:6; 71:7; 72:2; 72:6;
                                       73:2; 74:2; 74:3; 74:6; 77:1; 77:3; 77:5; 77:6; 78:2; 78:5; 79:2;
                                       79:3; 79:5; 79:6; 79:7;
maculata "Aurea"
```

77:1: 72:6: 77:7:

```
70:2:
maculata "Bluey"
                                        77:7: 79:7:
maculata "Pink Mini"
                                        78:4; 79:2; 79:3;
maculata "Thundercloud"
maculata "Traffic Lights"
                                        78:4;
                                        79:3;
maculata "Wendy"
                                        78:4:
maculata "Winter Gold"
                                        70:2; 74:4; 77:7; 79:6; 79:7;
maculata subsp. brevifolia
                                        72:4: 77:3: 79:4;
maculata x duttonii
                                        77:3; 79:7;
maculata x racemosa
                                        79:6:
maitlandii
                                        74:8;
'magnifica'
                                        73:7:
'malachoides'
                                        78:5;
margarethae
                                        70:2: 71:6: 73:2;
metallicorum
                                        70:3; 72:3; 72:6; 73:2; 77:2; 74:3; 74:6; 77:3; 77:5; 77:7; 79:7;
microtheca
                                        72:6: 79:4;
miniata
                                        73:6; 77:2; 74:7; 77:4 78:2;
'mirabilis'
                                        69:4: 72:7;
mitchellii
                                        73:8:
muelleriana
                                        70:4; 71:6; 77:3; 77:4; 77:7; 79:4;
neglecta
                                        69:3; 70:4; 71:6; 72:3; 73:2; 74:3; 74:5; 77:1; 77:3; 77:4; 78:3;
nivea
                                        79:5;
                                        73:2; 78:4; 79:3;
nivea x drummondii
                                        77:7:
'obliquisepala'
                                        74:5; 79:5;
'occidens'
                                        70:4;
oldfieldii
                                        77:3:
oldfieldii subsp. angustifolia
                                        69:2; 71:5; 72:2; 72:6; 73:2; 74:4; 77:3; 77:7; 79:4;
oppositifolia
oppositifolia subsp. rubra
                                        74:1:
obovata
                                        70:4; 75:1; 77:3;
ovata
                                        73:7; 78:5;
'pachomai'
                                         73:7; 74:4; 78:5;
paisleyi
                                         78:5:
'pallida'
                                         74:4; 78:5;
pantonii
                                         77:6: 79:5;
pentaptera
                                         73:7
 'perglandulosa'
                                         70:4; 77:1; 79:7;
 'pinnatifida'
                                         73:7;
 'phyllopoda'
                                         77:3; 79:4;
platycalyx
                                         71:6: 74:4; 78:5;
 platythamnos
platythamnos subsp. exotrachys
                                         79:5;
                                         72:5; 72:6; 74:5; 77:4;
 polyclada
                                         73:6; 74:5; 79:5;
 'prolata'
                                         77:4:
 psilocalyx
 pterocarpa subsp. 'acicularis'
                                         73:7;
                                         73:7; 78:5;
 punctata
                                         73:7;
 'pungens'
                                         70:2: 74:5: 77:3;
 purpurascens
                                         70:2; 71:6; 72:6; 74:3; 77:3; 77:4; 78:2; 78:3; 79:3;
 racemosa
 racemosa "Peaches and Cream"
                                         78:4
                                         79:5
 "Rainbow Gem"
                                         77:7
 'recurva'
                                         72:5
 resinosa
                                         73:8:
 'reticulata'
                                         73:8;
 'rhegos'
                                         77:7:
 'rostrata'
                                         78:4:
 rotundifolia x drummondii
                                         78:2:
 saligna
                                         79:5;
 santalina
```

```
70:2; 79:6;
sargentii
scaberula
                                        73:8: 77:7:
                                        69:2; 71:5; 71:6; 72:2; 74:4; 77:3;
scoparia
scoparia x oppositifolia
                                        78:4;
                                        69:2; 74:5;
serpens
                                        71:6: 74:4:
serrulata
                                        78:4;
serrulata x oppositifolia
sessilis (?)
                                        70:2;
'shonae' subsp. 'diffusa'
                                        73:8;
'simulans'
                                        73:8;
                                        74:7; 77:4; 79:3; 79:5;
spectabilis
                                        72:6; 75:1;
spinescens
                                        70:3; 74:3; 77:3; 79:3; 79:5;
'splendens'
                                        69:2; 77:7, 79:6;
strongylophylla
                                        69:4; 71:6; 72:6; 75:2;
sturtii
                                        70:4; 77:2; 78:5; 78:6;
subfloccosa
                                         73:3: 79:7:
subfloccosa subsp. subfloccosa
                                        71:1; 73:2; 74:5; 77:2;
'subteretifolia'
'sulcata'
                                         70:2; 72:6; 73:2; 74:3; 78:2; 78:3; 79:5;
"Summertime Blue"
                                        70:4: 79:3:
ternifolia
                                        71:6: 77:3:
tetraptera
'veneta'
                                         77:3:
                                         79:3:
veronica
                                         78:4:
verticillata x microtheca
                                         78:2;
virens
                                         70:4: 79:4:
viscida
                                         75:1; 75:2; 75:3;
'viscimarginata'
                                         71:7; 73:8; 74:5;
'warnesii'
                                         70:2; 72:6; 73:2; 77:3; 77:7;
weldii
                                         71:6; 78:5;
willsii
willsii subsp. 'integrifolia'
                                         77:6;
                                         77:2; 73:6; 77:4; 79:5;
"Yanna Road"
                                         70:2; 72:4; 72:7; 77:3; 77:7; 78:5; 79:7;
youngii
youngii subsp. 'lepidota'
                                         73:6;
```

3

4