Association of Societies for Growing Australian Plants EREMOPHILA STUDY GROUP NEWSLETTER No. 48

November 1992

The 'wet' seems to be continuing here in Adelaide, and from the letters I have received in the past few months it would seem that there are similar stories elsewhere. I note that there has been little damage to plants in my garden, although the hairy-leaved species seem to have had their fair share of fungal infections, but not fatally so; or at least not yet.

Ray Isaacson was able to take a selection of plants to the Shepparton Show, together with a good selection of cutting material. According to Ray the display did the group proud; he was impressed by their enthusiasm.

The Study Group was asked to present a display at this year's SA Region SGAP Spring Flower Show. We were very fortunate to have a wide range of species presently in cultivation and the display drew very favourable comments from those who passed through our area. Ray Isaacson brought down a load of mainly grafted plants, all in full flower and presenting a spectacular display of colour. This was complemented by a very good selection of cut flowers, used to fill in the spaces between Ray's potted plants. The whole display was at floor level and arranged with a layer of mulched gum bark to cover the plastic floor covering. Bob Chinnock, thanks to the generosity of the Herbarium of the Adelaide Botanic Garden, was able to present a poster display dealing with the pollination of eremophilas, via birds and insects. In addition I organised a collection of my photographs of some 40 or so species. The labelling of the plants was neatly done, thanks to the facilities of the herbarium being made available to us.

Colin Jennings

STUDY GROUPS WORKSHOP

The Study Groups Workshop has been and gone and I am now in a position to sit back and make some assessment of the weekend, and to pass on to you some of the outcomes and recommendations.

The weekend workshop was coordinated by the Australian Network for Plant Conservation, with the intention that we, as study group leaders would take away more information to disseminate to members of the groups, as well as to use the information as the basis of small manual to be produced for study groups in the future.

Geoff Butler, welcomed those present and the first session was an outline of Study Group Guidelines, presented by Jeanette Closs, a former Coordinator of Study Groups. This was followed by a very useful brain-storming session dealing with the present fuctions of study groups and their future role as a part of ASGAP. It was obvious that there is quite a diversity in the function of the separate groups, their membership, etc.

After morning tea, Peter Olde, leader of the Grevillea Study Group presented his thoughts on the administration of a study group. This was a welcome presentation, and Peter raised a number of issues that were discussed in the question time which followed.

The afternoon sessions dealt with 'Communications and Media Skills', basically dealing with newsletters and use of the media at large as a communication tool for the groups. This was followed by a presentation dealing with the preparation of surveys, their traps and their uses.

The last session finished at approximately 5:00 p.m., allowing us about two hours to make a relaxed walk around the National Botanic Gardens at dusk, after the public had departed. By 7:00 p.m. we were ready for the pleasant barbeque meal that was provided by the Canberra Region of SGAP. This relaxed atmosphere allowed us to make further informal contact with each other.

The Sunday sessions were of great value to me personally and I hope to you as members ultimately through this medium.

Bob Mackinson and staff from the ANBG herbarium presented very good sessions relating to collections, policy and techniques, followed by recording and data storage. This occupied the morning sessions and the afternoon was taken up with such items as: living collections, accessions, propagation, trialling, plant releases, cutting exchanges, quarantine. All topics were warmly received and the day was one of the best I have attended in various capacities. It is with regard to part of this that I will refer later in the newsletter.

Overall the workshop was well organised, a credit to those involved. The leaders present suggested that workshops could and should be conducted as the need arises in the future.

Colin Jennings

SPECIES INDEX

Over the years large numbers of plants, collected from many sources, have been introduced into cultivation. Some have come from fully documented sources, many from wild collected cuttings for which no record has been made. Some are possibly masquerading under false names. (Where they are now is a question!)

I am often asked for cutting material and can sometimes satisfy the needs of the members, however, my collection is limited and at times rather barren, through having cuttings taken from it regularly to fill requests.

It seems timely to ask for members of the group to pass on to me a list of the species they currently have in their collections. I do not need to know anything about how well they are growing, but it would be useful if you could indicate if they are struggling and likely to pass on in the near future.

Would you please let me have this information by the end of the year. An index of plants held will be of some use to the group overall. Also of use would be an indication whether the plant is a seedling from cutting or from graft.

Colin Jennings

COLLECTION OF WILD SOURCE MATERIAL

This item raised a number of questions at the seminar/workshop and I believe that we must all take some note of the ethics of collecting. There are rules that must be followed, and unless we do, we run the risk of being seen as mercenary and in fact face the heavy penalty of the law if caught doing the wrong thing.

Permits are required to collect from Crown Lands, National Parks and State Forests; in the case of the latter two it is also a requirement that the holder of the permit checks in with the ranger prior to collection. Such permits are generally obtainable from the Australian National Parks & Wildlife Service, offices of which are in each state. There are certain questions you would be required to answer in relation to your application.

Collection on private land involves you making arrangements with the landholder or lessee. Failure to do so could result in trespassing charges.

All collecting must be done with care and common sense. Do not destroy the plant from which a cutting is to be taken. A further requirement, associated with the permit is the need to lodge voucher specimens with the appropriate herbaria, botanic gardens, or whomsoever the permit requires. Rare and endangered species are not to be collected.

I have copies of the relevant information that was handed out at the workshop. I am happy to make this available to anyone who is intending to do some collecting in the near future. There is really too much to print in the newsletter, unless a large number make the request. Finally, on this matter, there is also the need for care in making sure that we are not the carriers of disease through poor collecting and transport procedures.

Colin Jennings

MEMBERSHIP LIST

I have received a few requests to have the list of members published. The list sent to members with newsletter no. 41 is still quite accurate, what it does not include are the names of the new members, or those who have left the group (very few in this category). I will organise to have a new list to send out with the next newsletter.

If any member does not want their name and address included in such a listing please let me know and I will not include it on the list.

Colin Jennings

SUBSCRIPTIONS & BOOKLET

Thank you to those members who have sent their subscriptions and to those who have sent additional money as a donation.

To the SGAP groups who have made contributions through their membership, your continued involvement is very much appreciated.

The Study Group Booklet is still available at a cost of \$6, plus \$2.75 posted anywhere in Australia. It will be of value to newer members, since it covers the first 35 newsletters issued by the group. I have had many requests for it from people with a wide range of interests, including quite a number of horticulture students. Please spread the word of its availability, the more we sell the less I have to keep in store and the longer we will keep our subscription to the low, low figure of \$2.

Colin Jennings

FROM YOUR CORRESPONDENCE

Norma Ali (Sandy Bay, Tasmania) has sent a list of her collection, and it is interesting to note that she is having some success in the somewhat atypical Tasmanian climate. Her success with the 'hairy-leaf' types is very limited. Norma hopes to add to her collection and I shall be sending to her a few cuttings in the near future.

Amongst those she is succeeding with are: Eremophila alternifolia, E. gibbifolia, E. interstans, E. ionantha, E. microtheca, E. saligna and E. nivea.

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Chris Stachan (Sth Oakleigh, Victoria) confirms that it is cold and wet in other places. Her eremophilas are wearing gumboots and wondering if they will ever see the sunshine again. Fortunately she has not appeared to lose any to date. Chris makes note of the increased

interest in the grafted eremophilas as garden plants in Victoria, and comments that there is a much wider range of plants being offered and grown in that state today than there were ten years ago.

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Laurie Gilmore (Lara, Victoria) emphasises the need for eremophilas to be planted in open, windy conditions. He lives on a suburban block, and points out that all of the eremophilas that are protected by fences the house or other shrubs have suffered severe infection during the extremely wet winter, yet those growing at the front, (the corner block faces north and west), have survived extremely well).

---00O00---

Jim & Wilma Thomson (Parramatta, NSW) have sent to me some notes, headed: 'Keeping Tabs - Flowering in Parramatta'. I have had it printed in full, since it refers to a number of matters of general interest.

When I joined the Study Group some sixteen months ago I received, with some others the February 1988 Newsletter with a sample of how to keep flowering records. Now, in the spring of 1992, I have records over something more than twelve months and can see how our relatively few species have performed.

Our star performer has been *E. youngii* which began flowering in early December and, in the second week of September, still bears quite a few of its attractive, light pink flowers.

Next came the various forms of *E. maculata* with 'aurea' flowering from early March to mid-October, the Nyngan form from early June to mid-November and the standard *E. maculata* from the beginning of September through to the last week of December.

E. laanii, (pink form), too, has been a good performer, with flowers from June to late October and a short, fresh run through December into January. The white form had a shorter flowering period from mid-July to late October with another brief flurry over some four weeks in autumn. E. glabra did well, too, flowering through spring, taking a rest for three or four weeks and then coming again through January, February and March. An unnamed yellow from Queensland, a Noel Gane cutting, bloomed well from early July to late October.

A picture in our garden at the moment, with its yellow buds on Dutchman's pipe stems, turning white with tiny red spots, is *E. alternifolia* var. *latifolia*. Last year this bush, which began blooming in early August kept flowering until mid-November and has been one of our best performers and a favourite of the birds.

Sadly my favourite, *E. santalina*, with its graceful foliage and dainty white blooms, looking very good now, began blooming in early August and ceased blooming at the end of October. I am not optimistic that it will last longer this year. Even briefer, has been the flowering period of *E. microtheca*, late August to mid-October, and *E. lehmanniana*, early August to late September.

Two of our R.I.P. species *E. viscida*, mid-August to early November, and *E. macdonnellii*, early November to late February performed very well before turning up their toes.

Chris Prossor (Strathmerton, Victoria) has commented on the Gardening Australia magazine and the TV programme's presentation of eremophilas and says that *E. paisleyi* subsp. *paisleyi* caught her eye. She is interested in obtaining some cutting material to try it out at her place. Most of her plants are growing in pots and seem to have not suffered too much from the change of address.

---00O00---

Ted & Cynthia Beasley (Rushworth, Victoria) have recently become involved in roadside vegetation surveys in their shire. They were delighted to come across 3 plants of *E. desertii* on the roadside verge and clearly growing well and flowering. A further thrill came for them when they noted the only other known species from their forest area, *E. gibbifolia*, seeming to be increasing in numbers.

Unfortunately Ted has been hospitalised and during his illness the results of the attempts to raise eremophilas from fruits were upset, and the results somewhat inconclusive.

The information supplied is, however, of some interest so it is recorded here.

Of 25 fruits of *E. bignoniiflora*, from a plant growing at Murray Bridge SA, planted whole, 2 germinated. Of 25 fruits planted with the outer cover removed, 1 germinated. Both lots were sown on 3/10/91 and germinated sometime between then and April 1992. The two lots were pretreated by soaking in an iron chelate solution (pH 5).

E. maculata fruits from Leonora, WA, were sown entire on 25/10/91, also after iron chelate pretreatment, one seed germinated.

They had no success with any of the 50 fruits of *E. spectabilis*. On checking one of the fruits a white, plump seed was removed, but after using some semi-sterile germinating techniques it showed little signs of germinating. They plan to try again, this time working with excised seed from greener fruits.

SLIDE LIBRARY

Several members and SGAP groups have approached me about the possibility of making slides of eremophilas available either for identification or as a programme to present to their particular group.

Whilst I have a personal collection of both slides and photographs, as do other members of the group, it would seem a worthwhile exercise to put together a comprehensive slide collection for future use.

To this end, if members have available spare slides of eremophilas, either close up of flowers, plants or location and would be prepared to make them available, would they please let me know what you have. If you have slides that can be copied, I am sure we have the funds to organise that; again, let me know what you have.

Colin Jennings

"MY EXPERIENCES OVER THE LAST 12 MONTHS"

Firstly, last summer early one morning I was watching bees around my E. divaricata. Some were almost as large as a honey bee, but the abdominal stripes were almost white, and the flight pattern was very jerky. Momentarily hovering, then darting to a new position, often adjacent to an open flower, occasionally alighting to feed. Subsequently I noticed a much smaller bee also visiting the flowers. Its flight patten was quite different; a brisk swaying movement then also alighting on the open flowers. Then I noticed it also visited unopened flower buds; intrigued I watched closely.

Alighting on a suitable bud it busily set about forcing its head into the bud and crawling in, "first bite at the cherry" so to speak. On backing out of the bud it left it, a fully open flower. I was wondering if anyone else has seen similar activities and if this is meaningful to the life cycle of eremophilas.

Secondly, my experiences with germinating Eremophila seeds since last summer. In October 1991 I was fortunate enough to get seed in the form of litter from beneath the following eremophilas: E. freelingii, E. duttonii, E. sturtii and E. maculata. The litter was very dry and stored in plastic bags until March 1992. I decided to try saturating the litter in a bucket of water, simply placing the bags in the bucket and fill it to overflowing then the next bag in also etc. Very little of the litter remained above water level. I was intending next day to spread the now sodden mass on a foam tray of sand. One week later I was horrified to find my bucket of water and its contents intact! I set about a rescue mission and to my surprise the top bag containing E. freelingii had two seedlings emerging on top of the litter. I carefully removed them and potted on, only to loose them to snails a few days later. The remaining sodden masses had been spread over the sand and our early wet season obliged nicely, I did occasionally water them but generally not. Within two weeks several seedlings appeared, two E. duttonii, one E. sturtii and seven E. maculata. Over the next month I potted them out, there were now eighteen E. maculata. They were potted into Reko pots in a sand/peat mix pH 5.5 -6.0 and watered regularly. Snails claimed several E. maculata seedlings, at least 12 remained and they have been potted up into 150 mm pots. They have put on over 200 mm growth and branched well, but tend to all be of a scrambly habit. The parent plants were up to 1 m high but often 3 m wide. Flower colour was not recorded. My two E. duttonii seedlings have also progressed well, one has since found its way to our Truro friend Beverly Rice. Early October saw my E. sturtii collapse quite suddenly, it was smaller than the others, but looked healthy, then died from the tip down, I felt so helpless.

The good news is that the boxes of litter have been placed outside into an area that is watered daily in the early morning and in the last few days five more seedlings have emerged in the E. maculata box!

Many of my eremophilas have resented this winter, however, my only loses have been *E. chamaephila* (in the ground), I have small ones coming on, and *E. willsii* from Ken Warnes. This leads to my propagating experiences following our Eremophila Study Group get together last September (1991).

I managed to exhaust my supply of grafting stock so decided to try cutting grafts in an attempt to use all cuttings to best advantage. Most of my 'new species' I preferred to graft first and only tried cuttings as a last resort. Cutting grafts meant that I could attempt an unlimited number of grafts.

Strangely, but not surprisingly, many of these cutting grafts succumbed quite quickly and I did not hold much hope for the remainder. At about 6 weeks, however, I potted up a healthy E. rotundifolia, then two E. viscida (pink form), and soon after, two E. freelingii and about the same time E. willsii. That was about my score, but with all of the less prized species I had no success, with conventional grafts or cuttings. All the above grafts were top cleft taped with florist's tape. I now use Nesco film or equivalent for safer grafts, but find the florist's tape better for firm stock and scion. I cut the florist's tape lengthwise into 2 or 3 widths depending largely on the diameter of the stock being used. I tend to be a little heavy handed with Nesco film and keep breaking it, the florist's tape is still stretchy, and self-adhesive, and I find easier to handle in a length 300 mm or so long. Nesco film tends to cling to itself and tangle, the use of a nail or dowel as a winder helps this, but gets in the way of any overhanging foliage. One advantage of Nesco film is its clarity, you can see the union forming, florist's tape is usually coloured and opaque.

Occasionally I have observed difficulty with mealy bug particularly on the roots of some brachyscomes and olearias. Treatment with 'Rogor' is successful, but at times I find odd

mealy bugs on grafted eremophilas and their favourite hiding place is beneath the remains of the tape. They seem to cause a nuisance with the forming union. My remedy is simply to remove the tape as the plants rupture it, by this time the union is well established. It is also well to observe the neatness of the union at this stage, it can be tidied up with a sharp knife, removing any remaining horns that have failed to knit.

One further comment re grafting and preparing cuttings; I find it more comfortable, and indeed have more accuracy with my cuts, using a large 'Snap' knife. It is easy to establish its direction of cut and it doesn't 'roll' in ones hand. Recently I have taken to using these knives to prepare cuttings, they give a very clean cut and snap off to give a new cutting edge. I must admit that my family give me a wide berth when I am using it for cuttings and the work area looks like a tornado has passed through.

John Barrie

MORGAN MACULATAS

A mild spring day and my birthday so into the car and off to visit the *Eremophila maculata* colonies near Morgan. As far as I know this is as far down river as this species grows although I spotted a few plants on the cliffs above Walker's Flat recently. However, the situation of those plants made me doubt whether they were naturally occurring.

We travelled up the road from Eudunda passing frequent stands of *E. longifolia*, plentiful *E. scoparia* and occasional *E. glabra*. A feature of the road was the display of the white daisy, *Olearia pimeleoides*. We also found a colony of the rare S.A. hop, *Dodonaea subglandulifera*.

About 6 km from Morgan the first depressions start and for the next 4 km there are several colonies of *E. maculata*. We were in luck as they were in full flower with spiny-cheeked honey-eaters flying in and out of the bushes (on a previous visit I saw blue-faced honey-eaters here). Grey butcher birds, thornbills and fairy wrens kept my bird-watching son busy.

As is customary in such a population there is considerable variation in bush size, flower size, colour, arrangement of flowers and foliage. I'm growing about 100 *E. maculata* but I couldn't help myself and came home with a huge bag full of cuttings ranging from pure yellow to burgundy with orange, glowing pink and scarlet along the way. One had lobes cut half the length of the tube, another flowered on short side shoots (c.f. *E. glabra*) giving long branches of massed flowers. The list goes on and on. It was a thrill to find, in still strong growth, the plant I call "Morgan orange" first collected in the early 70's.

Closer to Morgan there grows *E. alternifolia*, just across the river *E. divaricata* and a few miles back on both the Burra and Blanchetown roads *E. oppositifolia*. So that makes 7 species in a few miles.

Colin Jennings knows of other colonies in the same area and I would suggest that a visit could make an ideal field trip enabling those who only know eremophila as garden subjects to see them growing naturally. The distances are not great and I believe members from Adelaide, the mid North and Riverland could meet at Eudunda at about 10:00 a.m.; lunch at Morgan and have a great day. Sorry you interstaters, a bit far for you.

Ken Warnes

GLYPHOSATE - FRIEND OR FOE

Those who visited "Waldon" during the seminar observed that my plants of *E. alternifolia* and *E. purpurascens* had lost many leaves and generally didn't look happy. Someone suggested that these closely related species are susceptible to GLYPHOSATE Spray. My *E. purpurascens* has since died and *E. alternifolia* improved only slowly. At the house 2 plants

of the latter were so unsightly that I cut them to bare wood. Both are now shooting strongly. Two further plants in areas which have not been sprayed are quite healthy. Any drift would have been absolutely minimal and as no other plants were affected it certainly appears that there may be a connection.

Have any other members had similar experiences?

Ken Warnes

EREMOPHILA REVISION

Some new members have written to Colin Jennings under the impression that the Study Group was preparing a book on Eremophila so I thought I should update.

There has now been a change. Originally I had intended to publish a "once-off" scientific/popular book with colour photos of most species, however, as time has gone on this has proved to be impossible.

I recently had to abandon the idea of this "once-off" publication because of the large size of the manuscript - currently estimated at between 700 - 900 journal pages and I suspect the latter figure closer to the mark.

I am not only revising cremophila but all the genera in the family Myoporaceae world-wide so it has been a very large job involving nomenclature, taxonomy etc. To do such a revision it means looking at large numbers of herbarium specimens from Australia and many overseas countries (for overseas species as well as 18th and 19th century Australian material). Thus it is a very slow process.

What will appear first is a scientific revision in Journal of the Adelaide Botanic Garden in which new species will be published and all species illustrated by detailed line drawings like *E. "pinnatifida*" (Eremophila Study Group Newsletter 46. Once this publication is out of the way I will then prepare the "Eremophila Book" which will compliment the revision by having a less formal treatment of the species with shorter descriptions, colour photographs and other information of more interest to the grower. I currently have a colour photographic coverage of about 95% of the species world-wide.

The scientific revision as I have already said is a slow process and even when the completed manuscript is submitted for publication it will take a year to appear after it is refereed etc.

At the present I am finalising descriptions making sure that they are all consistent and comparable - once that is done and they are on disk, things will speed up.

Bob Chinnock

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Typed and printed at the Botanic Gardens, North Terrace, ADELAIDE 5000