Association of Societies for Growing Australian Plants EREMOPHILA STUDY GROUP NEWSLETTER No. 64

May 1998

This Newletter is a little later than I had intended, however, I have been awaiting some articles and to date they have not arrived; as a result this issue will be a bit smaller than usual.

I have had a couple of requests from members, as well as from the general public, about the use of eremophilas as cut flowers. One of these was from a person interested in extending their range of cut flowers to include eremophilas. Unfortunately I was not in a position to comment too much, since we do not appear to have looked at this aspect of their cultivation to any degree. I would welcome any useful comments about using eremophilas for cut flowers and also, if you know of anyone who has been doing this on a semi-commercial or commercial basis, please let me know.

Also asked by a number of people is the 'old question' - "How do you grow eremophilas from seed?" I must confess to saying "With difficulty," followed by a very brief summary of what appears to have been done and tested. Most information is anecdotal. Perhaps we have a member who would be prepared to take this matter on as an exercise and keep accurate records of their efforts and results. It would be a long term project, but maybe there is someone prepared to give it a go. Please let me know if you are interested - I can probably get you some references to start from. I suppose that we are in the healthy situation of being able to propagate eremophilas readily from cuttings or by grafting and so the need for seed raising is much lower than for some other genera.

As mentioned in the last Newsletter, information about eremophilas has been added to the Website of ASGAP. We are indebted to Brian Walters in NSW for taking the time to compile the information and in preparing the site. I understand that other genera will be presented from time to time. We have also received a number of requests for the book *Eremophilas for the Garden* as a result of the website.

Whilst mentioning the book, it is still available to members of SGAP at a cost of \$9.50 (including postage). Already I have disposed of nearly 150 copies to a wide range of people, each copy adds to our funds to the extent of approximately \$2. The more we can sell the longer we can retain our subscriptions at the low, low price of \$2 per year for local membership. The cost of overseas membership is determined by postage rates; it seems as if we can still manage at \$5 (Australian) per year for our overseas friends. A brief mention of membership and dues appears below.

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THANKYOU

OCTOBER SEMINAR

I recently heard from Maree Goods about the proposed Seminar, mentioned in the last Newsletter.

Maree and Norma Boschen are keen to have this weekend in their 'home territory' and plans are well on the way to making it a reality. The dates are the Weekend of October 17th and 18th, with the two days spent at Warracknabeal and Horsham, in the Wimmera region of Victoria. The location will enable Study Group Members from Victoria, New South Wales and South Australia to attend, and perhaps others who are travelling at that time from further afield might be able to fit this into their schedule.

There are three motels located in Warracknabeal, together with a caravan park and two hotels. I am sure that there is ample accommodation fo us all.

At this stage the programme is loosely formulated, but it is planned to start at the home of Norma & Keith, east of Warracknabeal, at 10am on Saturday morning, with Saturday's programme centred on their property. An evening dinner at a local hotel, will be followed by an 'after dinner talk' at a a nearby venue. On Sunday we would travel to Horsham for the second day's activities, concluding after a lunch at Maree's place. This early finish would allow interstaters and those travelling home to start work on Monday to do so at a comfortable pace.

You will find enclosed a form which you are asked to return to Colin by the end of June. This is an expression of interest only and those who do reply will be advised about the details as they come to hand. There will be more information printed in the next Newsletter, probably to be mailed in early September.

This looks like being a really good opportunity for us to get together again and for those who have not been able to get to the other seminar/workshops to be able to do so this time.

The programme should include an opportunity for exchange of materials, viewing the extensive collection of Norma and to hear about a number of topics of interest, including propagation, grafting and identification of species using a key. Sounds like a good weekend - hope to see you there!

CURE-ALL FOR SEED GEMINATION

(This article was given to me by Ken Warnes, who found it in the Australian Seed Industry Magazine, April 1997.)

A smoked water concentrate, similar to that used to cure ham and bacon, could become a successful and cost-effective tool for germinating rare and endangered plant species.

In a research project, headed by Dr Kingsley Dixon of Kings Park and Botanic Garden in Perth, the potential of regenerating native species on remnant bushland using smoke stimulated germination technology is being assessed.

The project is one of 21 ecological and socioeconomic projects in the \$3.9 million National Vegetation Progam to rehabilitate, manage and conserve bushland throughout Australia. The five year progam is managed by the Land and Water Resources Research and Development Corporation (LWRRDC) and jointly sponsored by Environment Australia.

"Food Products Smoked Water is a concentrated food preservative used to smoke meat products such as ham and bacon," Dr Dixon said. "It is more than 100 times more concentrated than the smoked water we had previously tested."

Dr Dixon explains that the research is based on the notion that a significant proportion of Australia's native plant species has a remnant seed bank lying dormant beneath the soil surface.

The smoke concentrate has proved to be effective in regenerating rare and endangered plants that previously could not be grown with seeds. In one particularly remarkable result, seed was germinated using the smoke concentrate on a site that had been grazed for nine years. Literally hundreds of seedlings of a variety of species were successfully germinated on this site!

Another important finding, is that the smoke concentrate can also be used to test land for remnant seed banks. This will assist land managers to identify areas where this simple treatment can be a valuable tool to regenerate bushland.

Dr Dixon said that the smoke concentrate has advantages over fire in areas where fire may cause significant damage to both plants and animals. As well. smoked water can be applied at times of the year when follow up rains are likely to assist seedling establishment.

"Fires can produce undesirable results such as encouraging weed growth," he said. "In comparison, smoke applied in the way we do it is quite environmentally benign. In our studies, smoke does not stimulate weed germination - it only stimulates native plants. Any smoke effects are then dissipated during the next rainfall."

Dr Dixon and his team aim to produce an integrated management package which combines the use of smoke concentrate with selective herbicides and direct seeding to restore and revegetate remnant vegetation. Emphasis will be placed on making the package affordable to commercial users.

Although only two years into the project, the researchers are already verging on developing cost - effective smoke germination methods for broad scale revegetation projects at an economic rate.

WA TRIP 1997

(The following is a letter I received from Russel Wait towards the end of February)

I have been waiting for Bob Chinnock to finish identifying the plants from my trip to WA in 1997, so I will do what I know and get some of it out of the way.

I left on 28th August for WA via Ayers Rock and Docker River making a round trip of some 10,000km.

There was rain on three of the days and showers on another three, with about 50mm falling in the Gibson Desert, this did not slow us down, but it did settle the dust and the conditions were nice and cool compared with what they had been a few days before. We did not see the sun for about four days and lost all sense of direction, but did not get lost. In the Gibson Desert there had been extensive fires over the past twelve months and it was sad to see that so many of the old acacias had been killed as a result.

On a red sandhill, its colour deepened by the dampness, we found E. willsii, 3m high by 2m wide, carrying its usual deep purple flowers; this tall plant just swayed in the breeze.

What I think is *E. battii* from around Warburton, (first seen in front of the Police Sation) had longer, thinner leaves than the one commonly seen in cultivation. It was growing in areas similar to *E. gilesii* but mostly predominantly one or the other. Some of the extensive areas of mulga and *E. gilesii* reminded me of SW Queensland.

Eremophila "revoluta" was found as an open bush, 0.3m high by 0.5m wide, with small gold foliage; later seen with grey-green leaves; the flowers were blue. The plants were growing on gibber or stony rises in open country. The first one found was at Mt Beadell, on stony ground in spinifex, with a possible hybrid between E. punctata (growing there) and with E. gilesii that was growing within a kilometre. Eremophila "revoluta" was seen for about 50km and it is one which I missed propagating last time.

On top of the range was found some *E. latrobei* which is the best one I have seen. It was 0.2m high by 0.3m wide, with short, bright green foliage, with very bright pink flowers, the deep maroon calyx hanging down like a lantern. I have missed propagating this one but I think that Len Richardson has been successful. *Eremophila latrobei* was seen over most of the trip, mostly as scattered plants.

Eremophila "pungens" was a magnificent green, upright bush, 1.7m high by 1.3m wide, with lovely large blue flowers. As the name suggests it has a spine on the end of the leaf, but it is not very prickly. It was found growing with acacias on the side of a rocky outcrop. I have grafted it successfully.

At this point in the trip my tape recorder stopped and I did not know this until we had travelled a further 300km, as a result I am missing a bit, but I do not think that there is too much of importance omitted.

Eremophila "flabellata", growing as an open shrub was found again. I did not have any success with it in 1996, so I had another go this time - unfortunately I have missed out again.

A bright green foliaged *E. glabra* with very bright red to orange-red flowers and semi-prostrate habit did not grow up amongst the shrubs like the others around. The ones I have grafted seem to want to grow upright. The other form which was growing here had a grey, hairy leaf, also with red to orange-red flowers and was also prostrate, but did grow into the shrubs -the grafted ones are growing prostrate. They are best of the glabras in the wild that I have found, and probably better than the 'Murchison River form'.

Eremophila "splendens" was an accidental find, I did not know that I had located it, thinking that it was just another form of E. glabra. It was not until I arrived home that I found out what I had collected. It was an upright shrub, 1.0m high by 0.5m wide, with hairy green leaves and orange to red flowers. From the information given I was led to believe that it was prostrate and I was in the area where I was expected to find it. The plant was a lovely upright shrub and I do have it growing.

Eremophila "warnesii", after the great man himself, was a very, hairy shrub, 0.9m high by 1.2m wide, with blue flowers. It was growing mainly on rocky slopes amongst the grass and other annuals. It took four hours of walking to find and collect material of this species; and it has been propagated.

Another species related to E. "warnesii" is E. "fasciata". It is in the 'hygrophana' group, being found growing on a rocky outcrop in association with shrubby acacias, that at times were so dense you had to push through them. It is an upright shrub with long, grey foliage, which at times almost hides the blue flowers; to me it looked like a shaggy dog with its long floppy leaves. Quite a few of the plants had limbs and even the whole plant broken by kangaroos. I have managed to propagate this one also.

Eremophila "arguta" was found in similar terrain to the ones found in 1996, but 250km away from that site, and possibly first collected back in the 60's. The leaves, when crushed, have a distinctive odour of cockroach. I have only one plant left from the 1996 trip and 5 from the 1997 trip.

I hope in the future to be able to write about some of the other plants collected, about six of them look as if they could be new species, but I will have to wait until that is confirmed.

PS I should also report that I have lost quite a few of my plants due to the dry weather and the frosts, but I will write about that at another time.

FROM YOUR LETTERS

Andrew Wilson - San Diego, California

How are you getting along? Here, I am fine now that the rains have come at last. I thought I might let you know about the eremophila situation.

So far, I have only four plants germinated, but have retained the seed containers which have unsprouted seed within them. The four plants are growing well, three *E. macdonnellii* and one *E. laanii*. It is amazing that the oldest seed did best. I will plant out the pair of them after the rains. I gave some of the remaining seed capsules to Jo O'Connell who owns a nursery growing Australian native plants from seed, Banksias, Hakeas and Grevilleas, to let her have a shot. I have also sowed seed from some of my own plants to see what happens. I still do not understand how the Czech guy got those germination rates. I'm not an expert of germinating seeds, but I've done quite a few and these are tough nuts. Did he try the experiments again or has anyone seen the resulting plants?

Over a week ago I met a woman here who grows eremophilas. She (Cathy Echols) had gone to Mildura, Victoria a number of years ago to get young plants and brought back cuttings of quite a few species. I saw the following ones at her place.

- E. cyanosa (I don't have a description of this one. Do you?)
- E. pantonii (I like it)
- E. longifolia (in a tree form just over 2m with her)
- E. divaricata
- E. maculata (a pink form, we usually just see the red or yellow)
- E. glabra (a prostrate yellow form that looked very good)

There were others, but I did not get cuttings of them. If you are interested I can get a fuller list. She is 500 miles north of here and has a colder climate in winter than I do, with higher temperatures in the summer, but often getting fogs from the Sacramento River that cause leaf spotting. Is this a known occurrence in Australia? She says that *E. nivea* is weak on its own roots and should be grafted, but I have seen good looking plants on their own roots about a hundred miles up the coast from here. What is the story?

I read about your show last year and enjoyed remarks about the local football team (the Crows). I'd like to get out there before you have the next show.

(Bob Chinnock has replied to Andrew's letter)

Alice Aisthorpe - Roma, Queensland

Our Open Garden day went well, we had about 250 people and a real Gabfest we had of it. John's orchids were stunning (John is an orchid grower and is a member of the Species Orchid Society, has been for about 25 years), but the eremophilas were nearly finished by October. They are at their best here around July/August.

Since October we have run out of water (again) and we lost a few eremophilas that were too small to take the terrible heat that simply didn't let up till last week (written January 15th 1998). I lost an E. macdonnellii (Simpson Desert form) which was stunning all through the heat, but carked it when we got a shower of rain at New Year. It was a metre high by a metre wide, covered with flowers, a round dome of glory, but it just went to the great garden in the sky. The wee plants which died from heat exhaustion were mainly E. abietina ssp. "ciliata"; I thought they were supposed to be vary hardy. I also lost E. christophori, it looked like a growing concern; I have had some difficulty maintaining this previously.

Philip Docherty - Karratha, WA

Not much to report really, still trialling bits and pieces and now that the warm weather is with us, I'll be able to let you know of any results. (I've found our summer, rainy season, to be the best time for propagating cuttings.)

^{*} This subsequently turned out to be a form of E. maculata. Ed.

All my cuttings are going fine, no more losses, however, it is Christmas Beetle time so time will tell. One thing that I can report on is, having moved a few eremophilas into better/ more protected positions, they seem to suffer no side effects from transplanting.

Mary Squire - Mukinbudin, WA

Thankyou for the morning which you spent with us when we briefly passed through Adelaide at the beginning of August. It was great way to fill in our time there. I loved seeing eremophilas that haven't come my way before and now I want to grow them all of course.

We had a lovely holiday made all the more enjoyable for me by the number of eremophilas that we came across. In Alice Springs we met Connie Spencer at the Olive Pink Reserve and visited, and were impressed by, the Desert Park. Our time was all too short to see all of the wonderful places in the NT, so we decided to follow Gile's journeys and begin at Chamber's Pillar. There we saw E. willsii in flower - beautiful. We saw lots of E. christophori around the gorges and between Warburton and Laverton this was often the dominant flora. The dunes were also spectacular after a good season. On the WA side we collected cuttings and specimens of some that I knew, including E. gilesii, E. abietina, E. exilifiolia, E.latrobei, E. glabra, E. hughesii and some that I have not been able to get identified yet.

We have been supplying large numbers of eremophilas to the Goldfields since our return. They are becoming very popular for amenity plantings around the offices and mills and they will be planted around the new Miners' Hall of Fame next year, so we are busy propagating and will endeavour to have some new ones for next year.

WHAT'S IN A NAME

abietina	resembling a fir tree	gibbifolia	swollen leaves
alternifolia	leaves not opposite along the stem	granitica	growing in or on granite or other quartz rocks
arguta	sharply toothed or notched	ionantha	violet coloured flowers
barbata	bearded, with thin, long hairs	maculata	spotted
bignoniiflora	flowers like that of the genus Bignonia	mirabilis	wonderful, remarkable
complanata	flattened or levelled	nivea	snow white
crassifolia	thick leaved	pentaptera	five wings
debilis	weak or frail	pinnatifida	with featherlike cut (to leaves)
decipiens	deceptive or cheating	polycladus	with many small branches
denticulata	slightly toothed	saligna	resembling willow
dichroantha	with flowers of two distinct colours	scoparia	broomlike
eriocalyx	wooly calyx	virens	green (flower)

AUSTRALIAN PLANTS

I have just received the latest issue of Australian Plants, in which there are several articles about eremophilas, accompanied by several excellent illustrations taken at the Arid Lands Botanic Garden at Port Augusta, SA. Space does not allow for more details here.

Manuscript names i.e. names that have not yet been published appear non-italic and in quotes e.g. Eremophila "flabellata". These names should not be used in publications.

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