

Association of Societies for Growing Australian Plants
EREMOPHILA STUDY GROUP NEWSLETTER No. 51

December 1993

My wife and I made a very pleasant trip to Wangaratta for their flower show; this trip in response to a request for the Study Group to assist with their show by providing some eremophilas. First find sufficient material to make an adequate display.

Fortunately we were able to collect some specimens from Bob Chinnock's garden on the Wednesday afternoon, the day before setting out. Added to Bob's contribution were a number of cuttings from our garden. We were at Ray Isaacson's by about 9 o'clock and within half an hour had substantially added to the buckets. Arrangements had been made to call in to see Russell Wait on the way across. Russ had spent part of the morning amongst his collection selecting more for us to take for the show.

We first met with some very heavy rain on Friday morning as we left Kerang, only to have the windscreen wiper break about five kilometres on the Benalla side of Shepparton. We made it to Wangaratta by about noon, unloaded the car and found ourselves a place at which to eat.

Although the hall was relatively small we managed to find a place for all of our material, 'stealing' bottles from wherever they could be located. The local group had a magnificent selection of natives, and I am pleased to report that we were more than pleased with the range of species which we were able to amass for the occasion.

There are several members of the Study Group living in the vicinity of Wangaratta and they contributed to the collection in a very valuable way.

It was a very enjoyable trip, unfortunately marred at the end for those living in the area by the enormous amount of rain which fell from Sunday onwards. Myrnie and I were fortunate in that we left early on Sunday morning on our way to Melbourne for a few days.

Another very pleasant aspect of the trip was the drive north from Wangaratta to Lockhart where we met Frank Prichard, one of the oldest, if not the oldest member of the Study Group. We had arranged to visit Galore Hill, several kilometres out of the township. We had previously visited the reserve, but on this occasion we were given a guided tour by Frank. It makes some difference when the background to a project is made clear. Frank was largely responsible for the establishment of the reserve, and has gradually built up the collection of eremophilas. I believe that Frank was pleased to get some of the name tags corrected.

I can assure you all that you would be more than welcome to visit the reserve, and you will have no trouble finding Frank in the township. I am sure that he would be very pleased that you made the effort to call in.

Colin Jennings

FROM YOUR LETTERS

Mary Squire, Mukinbudin, Western Australia

Mary has advised that they are selling about thirty species of eremophilas from their nursery, and that the genus appears to be gaining in popularity for inland planting both as garden subjects and for rehabilitation. Mary adds that Kambalda Nickel Operations, under the direction of their senior environmentalist, are very keen to establish eremophilas and to make a feature of them. Plants

which had been planted out in April were growing well when they returned to the area in August. Mary indicates that she is keen to propagate as many of the indigenous species as possible.

Frank Prichard, Lockhard, New South Wales

In a brief note accompanying his subscription, Frank says "In the ten years that I have taken an interest in eremophilas, I have not met a single knowledgeable person at the reserve who is growing eremophilas."

(I trust our recent visit remedied that some way).

Russell Wait, Natya, via Piangil, Victoria

Russell and Len Richardson made a trip to South West Queensland, collecting cutting material of *E. goodwinii* at Tibooburra, *E. obovata* at Orientos Station, *E. macgillivrayi* at Nappa Merrie Station, also *E. dalyana*. Around Quilpie they collected *E. arbuscula*, *E. stenophylla* and *E. linsmithii*. It seems as if there had been some good rains in the area, plants were in good condition. Russell also reports that they found *Prostanthera megacalyx* in flower, reporting that it was well worth seeing. Unfortunately clutch problems prevented them from travelling further north, the three day wait for parts from Sydney was not in their plans.

(Russell had been making cutting grafts with some measure of success. A good percentage of his collected material was seen to have taken when we visited en route to Wangaratta.)

Barry Meynell, Tolga, Queensland

Barry has a newly planted garden of eremophilas.

"Plants are watered one hour monthly by trickle hose. The whole bed was backhoed to a depth of 60 cm and raised another 30 cm. Hay mulch to a depth of 10 cm was spread with a 40 cm circle of *Casuarina* needles around each plant. The initial growth rate was amazing, 50% flowering within three months, and all but two flowering within nine months."

"I am preparing another bed using the 'Noel Gane' method, using my own struck cuttings, watering with 4L/hour drippers, mulched by 6 layers of *Cairns Post*, topped with 10 cm of hay. This idea should save some of the water bills."

Ian Jardine, Broadmeadows, Victoria

Ian seems to be able to get his cuttings to strike, however, has experienced difficulty when potting on.

He would like to find out more about germinating seed, having tried on numerous occasions without much success, although he did get two seedlings to grow by using the following procedure.

Several fruits were put in a paper bag and then into the freezer for a couple of hours per day for a fortnight. Then he put them in a mix, putting them outside in May and forgot them. In August he noticed two seedlings. The sad part related is that they both died, one due to damping off, the other due to a slug or snail.

Chris Strachan, South Oakleigh, Victoria

Chris reports than Mt. Cassel Nursery at Pomonal in the Grampians has a good range of grafted eremophilas; she found some species that she did not already have. In her opinion grafted eremophilas are the 'way to go' in Melbourne, especially the more spectacular species.

(We are indebted to Chris for her efforts in spreading the news about *eremophilas* – she has addressed at least three groups this year. She says that people are generally very interested to know more about the genus and its requirements. Thank you Chris.)

Cynthia & Ted Beasley, Rushworth, Victoria

Cynthia writes that Ted and she had a brilliant idea, resulting from necessity due to limited time. They decided to make cutting grafts of various *eremophilas* on *Myoporum parvifolium* stock, using water in individual bottles to root the stock. This appeared to work well with at least 200 forming roots out of about 250 attempts. Unfortunately, on potting up, failure, with a resultant loss of about 90%. They have since read of the difficulty with water induced roots. Losses were due to the stock dying – an experiment not to be undertaken so lightly again. They are now sticking to more conventional methods.

FIELD TRIP TO CENTRAL AND SOUTH-WEST WESTERN AUSTRALIA

During October and November Bob Chinnock and I carried out a collecting trip of *Eremophila* through the Murchison, Goldfields and the central wheatbelt. One of our first stops was to look at a natural population of *E. nivea* around Moora. *Eremophila nivea* is on the declared rare and endangered species list in Western Australia, although fortunately it is widely cultivated in W.A. and S.A. This is the only known community on remnant vegetation, located on a wheat and sheep farm. Travelling north, we arrived at Woolgorong Station, where Meg Officer has been enthusiastically collecting several dozen *eremophilas* on her property. *Eremophila mirabilis* (ms) is scattered throughout the station, and is a warty leaved shrub up to 1 m, with spectacularly coloured flowers. It has previously only been known from Menzies. Meg showed us a nature walk currently being prepared in bushland adjacent to the Murchison roadhouse (which also boasts a very impressive recently constructed museum of station life)! The nature walk includes typical emu bushes such as *E. forrestii* (Wilcox Bush), *E. gilesii* (Green Turkey Bush), as well as the small trees *E. fraseri* (Turpentine Bush) and *E. longifolia* (Berrigan). Attractive mistletoe also adorned wattles throughout the shrublands. Meg took us to Melberrie Station, where two colour forms (cream and pink) of *E. laanii* were encountered along a creek bed. The impressive feature of this location was that *E. laanii* measured up to 6 m in height. As we drove north, the vegetation became drier, with few shrubs in flower. As we approached Gascoyne Junction, it was apparent that little rain had fallen recently, though the dwarf shrub *E. cuneifolia* paraded along either side of the track. This shrub grows to about 1 metre but would make an impressive ornamental shrub because of the rosette shaped foliage. The majority of *Eremophila* were developing fruits, many of which had dried out and were ready to be scattered by the wind. Heading east from Gascoyne Junction, we came across an impressive stand of *E. macmillaniana* (Grey Turpentine Bush) along the slopes of a breakaway, which can be easily picked out from the road (with the aid of binoculars)! This majestic shrub grows to 3 m, with grey resinous spatulate leaves, and dull red flowers (interior yellow). One of the highlights of the trip was a new species (erect compact shrub 30-40 cm with felty leaves) found on the upper slopes of Mt. Gould (altitude 750 m). Bob had already seen a specimen from Mt. Clere Station but had insufficient material and data to be able to describe it. The lower slopes of Mt. Gould supported a population of the attractive *E. lachnocalyx*, which is a 2 m grey leaved shrub with tubular blue-violet flowers. Flourishing along the creek beds around Wiluna was the grey form of *E. longifolia* which I had not seen before. We also collected fruit and a new species just N of Wiluna. As we travelled south to Leinster, wild flowers adorned the shrubland - it was apparent that good rains had occurred recently. In Kalgoorlie we met up with Andrew Chapman (Conservation and Land Management) and the Goldfields Land Rehabilitation Group, who accompanied us to Kurrawang Nature Reserve (on the outskirts of Kalgoorlie on the Great Eastern Highway) where *E. interstans* (subsp. *virgata*) was in full flower. This species with *E. dempsteri* appears to be the main understorey throughout the Kalgoorlie - Norseman region. We met up with one ESG member from Kalgoorlie, Phil Stanley. He currently runs a nursery in the town, and grows many local *Eremophila* species from cuttings.

At Kambalda we were shown an *Eremophila* garden by Colin Woolard of Western Mining Corporation. Many rare and endangered species (*E. inflata*), as well as the local species were being grown and will end up being a very low maintenance garden due to minimal water

requirements. One of the most attractive shrubs observed on the trip was *E. racemosa*, adjacent to mallee woodland around Forrestania. It is an erect shrub to 2 m, with pale green alternate leaves, and tubular flowers, initially orange and yellowish orange, maturing to reddish purple. With approximately 175 emu bushes in Western Australia, this trip highlighted the range of habitats and forms in which eremophilas can occur.

Guy Richmond

BIOLOGICALLY ACTIVE COMPOUNDS IN EMU BUSHES (GENUS *EREMOPHILA*)

Australian Aboriginals were the first to realise the medicinal potential of Emu bushes. But was it their belief in magic that cured them or do some species actually contain biologically active compounds?

Our research has recently revealed that some species of *Eremophila* may in fact possess compounds that are biologically active. Preliminary results, using isolated rat heart preparations as bioassays (Langendorff heart preparation), suggest that even minute quantities of an extract obtained from the leaves and bark of some species have repeatable effects on rat hearts. Immediately following the introduction of the extract to the system, we found that activity, mediated by adrenergic receptors in the myocardium (heart muscle), was significantly increased. We believe that there are several compounds within each of the extracts that may mediate these effects. At this stage we are working to isolate single compounds and verify our results with statistically relevant numbers of animals.

M. Pennacchio & E. Alexander
School of Environmental Biology, Curtin University of Technology, Perth.

SUBSCRIPTIONS

These were due in June. There are many who are receiving the newsletters and who have not made a contribution for some time. \$2.00 per year is a minimal cost; if it is too small to write a cheque then might I suggest that you send a couple of year's subscription at the one time. Many do this now, several holding at least two year's credit.

During the forthcoming school holidays I plan to go through the records and will advise all unfinancial members of their status with the March 1994 issue of the newsletter. For those who remain unfinancial after being advised, their March issue will be their last.

Sorry, but we can't continue handing out 'freebies', when others are paying for them.

Colin Jennings

BOOKLET

We still have plenty in stock. Cost is \$6.00 plus \$2.75 postage anywhere in Australia.

Colin Jennings

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