

Association of Societies for Growing Australian Plants

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Goodeniaceae Study Group Newsletter No. 6
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Leader:

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Hello everyone,

I must have done something right in the last newsletter. I was swamped with correspondence from old forgetful members and a couple of new recruits. I also received an interesting letter or two from a young man doing a post-graduate degree in Botany specialising in Scaevola so recognition seems to be coming thick and fast for our Goodeniaceae. I have also finally installed the new watering system just in time for summer so maybe we are progressing at last. This newsletter will be made up of a collection of bits and pieces from letters received from active members and collectors so bear with me if it jumps around a bit.

General News

Firstly a financial report. Currently we are relatively solvent with \$ 190.96 in the bank and few major expenses looming.

I gave my general introductory talk on Goodeniaceae to the Harbourside Group of the NSW Region in August and it was apparently well received. I have invitations for next year from the Wollongong and Central Coast Groups and a feeler from Canberra Group so interest is there.

Membership

As I mentioned in the last newsletter monies for this year are due (now past due).

Since the last newsletter there have been one addition to the group and some previously unfinancial members have returned to the fray which is gratifying.

The new member is

Klaus Querengasser
P.O. Box No. 73
St. Lucia 4067

It is with some regret that I have to accept the retirement of Eileen Croxford from the group due to the death of her husband recently and changed economic circumstances. Eileen has been less active of late but has always been a strong supporter and one of

the few members in WA. I hope that Hazel Dempster, her daughter, who is also a member can find the time to become active in the future as WA is an important source of material for the group. Eileen has invited members to write to her if they intend to visit WA as she has a wealth of knowledge about habitats for these plants and is quite willing to direct members to the better areas to view the plants growing naturally. Her address is

Eileen Croxford
33 Hillman St
Albany
GPO Box 297, Albany 6330.

As I mentioned above, I have received some correspondence from a Greg Howell, who is doing a post-graduate degree on reproduction in *Scaevola*. I have included copies of his letters with this newsletter. As you can see from his second letter he apparently has access to a far wider range of species than we have been able to muster to date and appears keen to co-operate with the study group. Certainly it would be a boost to our pool of material and knowledge if we could maintain access and contact with Greg. I would encourage all members and groups to read the letters carefully and to help if at all possible.

Now to the letters:

Joan Carr from Bacchus Marsh in Victoria writes: "I particularly like *Dampiera*, and though some grow for a period, I don't get many flowers. I am applying potash in a liquid form to try and rectify this possible cause. I am interested to hear of the '*Scaevola* sp. aff. *ramosissima*' which could be the species I have just bought, named '*S. aemula* Diamond Head'! I had it for a few months last year - it was a lovely species; keeping it beyond one flowering season seems to be a problem. *S. aemula* also seems to have a limited but very floriferous life with me. It is good for cutting for vases I have found. *S. 'Mauve Clusters'* is one success story however."

Ida Jackson from Kingscote on Kangaroo Island has been in touch a couple of times, once to supply some cutting material of *Scaevola crassifolia* which is a superb species. In response to my reply Ida offered the following comments:

"Do you find *Dampiera lanceolata* very difficult to maintain in a garden? We have tried to grow it but it dies within the year. Our form is var. *insularis* and grows in sand; our soil is heavy clay, much modified over the years with the addition of compost, but still too heavy for this species.

Scaevola crassifolia is usually a cliff-top species here growing in calcareous sands or on limestone. However, we have found that it adapts well to our soil which, though heavy, is

neutral to alkaline. *S. linearis* var *confertifolia* grows on lateritic sands or rubble in a well-drained open situation. It appears to like full sun.

I have been successfully striking *Goodenia varia*. It is very hardy and flowers for most of the year, not as showy as some of the genus, but so easy to grow!"

A letter I received from Gary Leske (Port Pirie, South Australia) deserves an article in its own right so here goes (paraphrased in spots!).

First a description of his situation and garden:

"Port Pirie has a typical temperate climate with cool, mild winters and hot summers. Average winter temperatures would be in the range 5oC min. to 12-13oC max. Summer temperatures reach 42-44oC with most days being 32-38oC. Rainfall is between 350-400 mm per annum, most being winter rain. Occasional summer thunderstorms can bring a deluge e.g. one day last March we received 75 mm but this is the exception.

I am gardening in an area which previously was saltbush country (*Atriplex* spp), the soil being a very heavy clay. Most of the garden is in the form of raised beds being 10-60 cm above the clay. Some gypsum was spread on the clay prior to constructing the raised beds. Various soils have been used in the raised beds including - local brown driftsand, pH 8.5
- coarse white builders sand (crushed sandstone pH7.0)
- river gravel pH 7.5
- combinations of these

In many areas I have planted into a mixture of the above with pine needles and horse manure added. All beds are mulched with bark chips, pine needles or a combination. All species are in full sun. Watering is approximately once a fortnight for 6 hours on trickle irrigation at 4litres per hour - spring and summer. No artificial watering in Autumn/Winter.

Generally I have most success in the beds of pure building sand. I did add a layer of horse manure under this and, other than iron deficiency, dont seem to have a lot of nutrient deficiencies. The garden was only established last September and, although I realize it is still "early days" I feel like I have achieved considerable success with about 400 different plants in the ground and about 50 losses (mostly due to wind damage and pests)."

Gary then goes on to describe some of his efforts with Goodeniaceae:

"*Dampiera alata* - planted in sand (c. 10 cm depth) on clay on 7/4/90. In poorly-drained area but still surviving.

D. diversifolia - planted in sand (20 cm depth) as a 5" pot specimen on 5/8/89. Flowered in Sept/Nov. Was struggling from iron deficiency but following several treatments with liquid iron, it has greened up and is now starting to spread. Still only about 200 mm in diameter but looking good.

D. lavandulacea - bought as a 5" pot specimen. Planted in 5

cm sand on clay on 24/12/89. Has almost doubled in size in 6 months. No problems. Has not yet flowered.

D. tetragona - planted in rockery in sand (c. 20 cm deep) on 5/8/89. Flowered in October. I pruned it after flowering which seemed to set it back for a few months. Has needed a couple of liquid iron treatments. It has made a lot of new growth during May and June and it is approx. double the original size and looking good.

Goodenia geniculata - was doing well in sand at base of a rock but became infested with cotton-cushion scale. After a number of attempts to eradicate the pest I was forced to remove the plant as the scale was spreading.

G. ovata - bought as a tube and planted in 30 cm sand on clay on 24/8/89. Has flowered from November through to present (Aug 1990) and is tumbling over a concrete edge and nearby rocks. Now about 0.5 x 0.5 m. NO problems.

Lechenaultia biloba - 2 forms in sand (30 cm) on clay. both turned brown and died. One on 5 cm sand on rock has survived but needs regular liquid iron treatments and has not made much growth. Two forms in river gravel/loam (10 cm on clay) are growing slowly. Need occasional liquid iron treatment. None have flowered as yet.

L. expansa - One plant in rockery in 20 cm sand planted 6/4/90. Little growth or change yet.

L. floribunda - Three plants bought as tubes were planted in various depths of sand. One blew away, second turned brown and died and third has made considerable growth (now 300 mm x 300 mm) but has required constant liquid iron treatment. Flowered in November after being planted on 24/9/89.

L. loricata - One planted in 20 cm sand and one in 10cm gravel/loam, both growing slowly but needing constant liquid iron applications.

L. formosa (orange) - Four plants, 2 in sand (10 cm and 30 cm on clay), one in gravel (10 cm on clay) and one in gravel/pine needles/horse manure (20 cm on clay). All doing well. Those in sand have given a magnificent display since May and are still a mass of flowers. Others not quite so floriferous. All need an occasional treatment of liquid iron. PLanted on 24/9/89 from 5" pot. Now about 300mm x 300mm.

L. formosa (prostrate red) - Two plants, one in gravel (10 cm) and one in sand (20 cm), both flowering well since May. Need regular liquid iron treatment, particularly the one in gravel. Planted from 5" pots in 9/1/90. Have not made a lot of new growth.

Scaevola aemula - species collected near Port Pirie where it was growing on clay along side of road. Grown from cuttings and planted into clay on 10/2/90. Has flowered continuously since then. Now c. 15 cm x 15 cm. Poor drainage does not seem to be a problem.

S. paludosa - planted 3/4/90 in 10 cm gravel on clay. Looks healthy but has made little growth.

S. thesioides - two plants planted on 24/9/89 in 20 cm sand. Both have grown to about 700 mm x 700 mm and look healthy although they needed the odd treatment with liquid iron when young. Neither have yet flowered.

"A *Scaevola* species collected near Port Pirie is proving to

be very pretty. I have tentatively identified it as *S. aemula*. In my travels last year I observed vast patches of these growing along sides of the roads in depressions from Crystal Brook north as far as Orroroo. Last year, we did have unseasonal rains, so it will be interesting this spring to see if the same species appears. If so, I will be looking for different colours and forms.

I have also been attempting to raise species from seed with no success (me neither!). Species tried include *Dampiera sacculata*, *D. wellsiana*, *Goodenia scapigera*, *G. tenuiloba*, *G. vilmoriniae*, *G. viscida*, *G. watsonii*, *Lechenaultia linearoides*, *L. macrantha*."

NOTE: This is obviously an important area for study. I don't know whether the problem is viability or the need for pre-treatment. Accessibility to good seed supplies is also a problem.

I have had some correspondence from Leon Steinhardt who lives at Laidley just west of Brisbane.

"Goodeniaceae up here haven't had it easy in the last couple of years. The long periods of humid weather in Autumn did not in itself create a great problem, but the sudden change to very dry conditions did, particularly as the weather warmed up. Gradually, they gave up the ghost. The most hardy were *Scaevola aemula*, *Lechenaultia formosa*, *L. biloba* and *L. floribunda*.

However I do not consider that this has been a reliable trial of Goodeniaceae. The tale of woe with other native species has been just as bad. I had enormous problems with various species of *Eremophila*, and even various *Acacias* did not survive. But the more established plants seem to be able to withstand the variation in climatic conditions better. The trick is to find the ideal time to establish the plants and to get them to a reasonable size before weather extremes defeat them."

Some correspondence from Jan Sked, our new study group coordinator, who has apparently tried a number of Goodeniaceae in her garden with little success. Jan also comes from Queensland.

"Haven't had much success with Goodeniaceae so far. Have tried *Goodenia rotundifolia*, *Dampiera diversifolia*, *Lechenaultia formosa*, *Scaevola aemula*, *S. albida* and *S. stricta*. Only *Dampiera stricta* is still surviving. Have a feeling I've also tried *D. purpurea* and *S. microphylla*, but have no written records."

More correspondence this time from Jeanette Closs who is President of ASGAP currently and leader of the *Dodonea* Study Group.

Scaevola in my garden

Dennis's article inspired me to look at what species I am growing in my garden on a steep block facing east, overlooking the beautiful Derwent River and surrounding hills. I have never

consciously collected *Scaevolae* but I am always on the lookout for ground covers to clothe our slopes and terraces or for small plants to fill in the spaces.

I have a dainty little *S. pallida* which Doris Gunn from Ocean Grove, Victoria gave me. Doris spoke of it as 'our local one'. Jean Galbraith describes it as similar to *S. albida* but the leaves and flowers are smaller. It is a dainty and not spectacular one, which cascades over a rock wall in partial shade.

For eight years I have had a *S. albida* - blue form, which is hanging over a low rock in full sun and puts on a great display for a long period. Nearby in *S. albida* - white form, not so vigorous, but then it is only two years old.

In another sunny spot in heavy soil is *S. stricta*, a plant given to me by Marion Simmons two years ago. It has spread to 0.6 m and its dainty flowers are a bonus.

A white flowered *Scaevola* is also happy in sun, but its lost its label (if it ever had one). Its leaves are longer and slimmer than the previously mentioned ones, with some serrations and revolute margins.

S. humilis is one bought at a nursery. Its leaves are similar in shape to my mystery *Scaevola*, but they are more leathery and the margins are not rolled. The leaves have a plumish tinge and I think that the flowers are mauvish.

When in WA last year I was given a cutting of *Scaevola* "Pink Blush" by Glyn Sago. It has lovely soft (not pale) pink flowers. Some of the leaves are quite large, up to 4 cm and spatulate with 5 or 7 teeth near the top half of the leaf. Could this be the *S. "unnamed"* that Dennis mentioned. I have put in more cuttings from my tiny plant but haven't planted it out as yet.

In Tassie, we have a lovely form of *S. aemula* growing up the east coast. The flowers are big and (from memory) a white throat and bluish-mauve petals. I can't keep it in either a pot or in the garden and I have struck cuttings a number of times and had plants given to me. It is a sprawling plant - a bit untidy, but the flowers are lovely.

Another of my failures is *S. hookeri*. Cuttings collected from Mt Wellington struck, but it died when planted out. I can only find good descriptions of our Tasmanian species, none of which are endemic. These are in 'The Students Flora of Tasmania' by Dr W. M. Curtis. In this book are listed *S. hookeri*, *S. calendulaceae*, *S. albida* (these two occur only on the Bass Strait Islands, not on the mainland) and *S. aemula*. Where else can I find good descriptions? Must I wait for the last volume of the Encyclopaedia? (appears so! or the appropriate issue of the Flora whichever comes first! - Editor).

From Bev Truscott at South Oakleigh comes the following:

" I have been increasing my collection of *Goodenias* but have had some losses. I don't get into the bush often so my collection is from nurseries and other members. My present list includes:

G. amplexans grows well, propagates readily.

G. sp. aff. amplexicans brought as *G. amplexicans*, surviving but suffers badly from mildew and aphids.
G. hederacea surviving in a wet area
G. humilis does well sometimes, have successfully divided. I think it needs feeding? and lots of sun.
G. lanata growing well in wet area, its large flowers have been admired by visitors.
G. ovata have lost it around the garden but now have one in my wet area. Also have prostrate form in a pot in water in the bird bath, does very well.
G. varia growing well in hot dry and sunny conditions, have lost them in all other places. Propagates readily.
G. sp. brought as *G. varia*, grows and propagates readily. I suspect it could be a form of this species as mentioned in Newsletter No. 2. It looks like *G. hederacea* var. *alpestris* as illustrated in Elliott and Jones.
G. viscida grows but not as well as I have seen it elsewhere.
G. geniculata growing well.
G. gracilis still new, appears to be doing well.
G. macmillanii was doing well in pot but has not moved in the garden.

There are two species that I have lost completely.

G. affinis this was my favorite, growing in a pot of propagating sand. Dried out when I was suddenly away from home for a short spell.

G. paradoxa was only small when planted out and did not survive the snails and small boys in the garden.

My biggest concern with the *Goodenias* has been positive identification. I tend to work from Elliott and Jones: Encyclopaedia. Do you have any other suggestions? Is there a good key somewhere?

Editor: This is a recurring problem. There is a key developed by Roger Carolin for the Flora however getting access to it before it is published is the difficulty. I have tried, with little success at present as it is difficult to contact Roger now he has retired.

There are other letters that I have not reported on as yet. Probably the next newsletter. I have included an article sent to me recently from the report from the West Australian Gardener on research into *Lechenaultia*. It looks as though they have trouble growing the genera also! The article came from Joan Hales who also informs me that 2 varieties of *L. formosa* have been registered under the Plant Variety Rights legislation as well as a hybrid between *L. formosa* and *L. biloba*. They are listed in the magazine for December 1988 (I think!). All were put up by the NSW Dept of Agric. and Fisheries and Ornamental Native Australian Plant (Research) Pty Ltd.

Happy gardening
Dennis Margan

WHAT THE EXPERTS SAY

New developments in Lechenaultia

By Bob Dixon,
Horticultural
Adviser, Kings Park
and Botanic Garden



MOST people are well aware of the ornamental value of Lechenaultia, in particular Blue Leschenaultia, a common plant in the Darling Range near Perth, and Red Leschenaultia, which is now regularly used as a container plant.

Unfortunately both of these species and most others are difficult to grow in the open ground, especially in Perth's sandy soils.

Due to this failure of establishing plants, a grafting program was initiated in Kings Park nursery. As Lechenaultia laricina appeared to be the easiest species to grow on its own roots this was used as the stock; fortunately this proved to be compatible with many species.

Grafted plants were then planted out into a section of the Rare and Endangered Garden adjacent to the Public Display Glasshouses.

Several of these plants are still growing well under normal cultural conditions, in particular Lechenaultia biloba and L. chlorantha. Other species which can be seen include L. hirsuta, L. brevifolia, L. stenosepala, L. expansa, L. formosa and a natural hybrid, Lechenaultia 'Park Pride'.

An extensive interspecific hybridising program was undertaken by Kings Park Research Laboratory. The basic aims were to produce plants suitable for growing in the open ground as well as container growing, to create new colour combinations and growth forms, and to extend flowering periods.



Lechenaultia in exciting new colours and shapes on display at Kings Park.

Parent species were selected for certain characteristics, for example, Lechenaultia hirsuta for vigour, L. macrantha for different shape, L. brevifolia as an open flowering plant, and L. formosa and L. biloba for colour combinations.

Although it is still early days the resulting hybrid plants have lived up to expectations producing some exciting new colours and shapes. Evaluation as open garden plants has yet to be carried out, and this may take several years of growing on.

Many of these new plants can be seen in pictorial or live plant displays at the Kings Park Wildflower Festival.

Note: This article has two ways of spelling this plant's name. Lechenaultia (without an "s") is the the genera name while Leschenaultia refers to the common name, eg Blue Leschenaultia.

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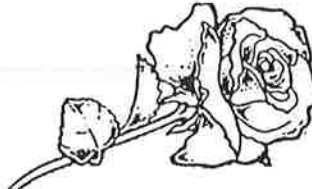
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