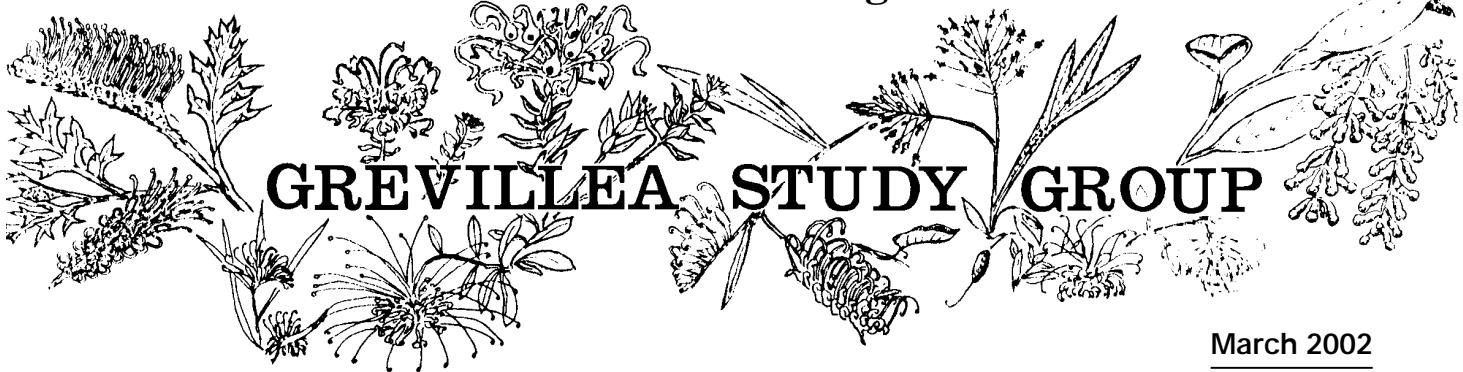


Association of Societies for Growing Australian Plants



GREVILLEA STUDY GROUP

Ref N° ISSN 0725-8755

March 2002

Newsletter N° 61

Welcome to the Grevillea Study Group once again. As a result of our last meeting , it has been suggested that at least some meetings and field trips be held mid-week. This will alleviate clashes with other social activities and may encourage a greater participation rate among members who are either retired or flexible in their work arrangements. I am proposing a few extra 1-2 day field trips this year, especially to areas where I am studying unresolved species. The programme is incomplete but ready up to June for the current newsletter.

An attempt to document the historical record of the Grevillea Study Group will be undertaken by Cas Liber and Bruce Wallace. Doug Pattinson has offered his services to scan the old issues. Most activities will be traced through the newsletters which will be scanned to disk and indexed. The index will be available over the internet and possibly in hard copy.

Marriott & Olde are updating their key and this will be available shortly in separate sheets. Andrew Billinghurst has expressed willingness to get slides converted digitally and stored on CD. We thank him for this in anticipation.

The Study Group (NSW chapter) have presently over \$21,000 in their keeping. An offer to the Australian Flora Foundation in the sum of \$5000 has not been taken up. The first part of a \$10,000 commitment to finding a grevillea suitable as a focus cut flower has been sent to the University of Sydney and funding for taxonomic research has been approved for Peter Olde & Neil Marriott (petrol money). I am currently considering some possible areas of research that may be useful to the group. Proposals and new ideas are welcome.

There have been some interesting views expressed recently in Group and State journals concerning the deterrence-effect of the words "study group". Many new people feel intimidated because of their lack of knowledge. We should work to overcome this attitude because most members have limited knowledge and join the study group to acquire more.

Members might like to correspond on these matters and any others that would make the newsletter more interesting. At the same time we should not compromise the top end of the knowledge stream that flows from members.

At present, there are too few members contributing to the newsletter. We need articles and observations from anyone who can do so. How about an article on your favourite grevillea and why. It doesn't have to be a garden plant.

Go forward in 2002 and enjoy these beautiful plants, whether they are hybrids or species. Did you know that even though it is the most horticulturally popular, the third largest in the Australian flora, the best bird-attracting genus etc etc, there has never been a grevillea on a postage stamp?

Victoria Chapter Excursions

Participants please contact Max McDowall 9850 3411 by previous Sunday to receive further details of itinerary, etc., and to organise plant and cutting swaps.

Sunday May 19th:

Garden Visits & Propagation Workshop in Melbourne Area

1. Max & Regina McDowall, 10 Russell St, Bulleen. 9850 3411 (Melway 32 H6) from 10.00-10.30 am for morning tea followed by tour of garden, BYO lunch & workshop.
2. Michael and Helen Williams, 63 Sackville St (via Main Road & Cressy St) Montmorency Phone 94392427 (Melway 21 E8) from 2.30 p.m.

SGAP (QLD REGION) INC.

Morning tea 9.30 am, meetings commence at 10.00 am.
For information contact Merv Hodge (07) 5546 3322.

SUNDAY 31 MARCH 2002

Home of Ian & Carolynn Waldron, 183 Clydesdale Road, Jimboomba 4280 (UBD Map 330 Q1)

(07) 5546 9494

Subject TBA.

Phone the host of the meeting for detailed directions

NSW PROGRAMME 2002

more dates inside on page 5

Sunday March 10 10 am

Place: Education Room Mt Annan Botanic Garden

Subject: Small grevilleas for the home garden

Preparation for the Autumn Plant Sale

Speaker:Peter Olde and others.

You are invited to tell us all about the plants you love to grow that fit the bill.

INSIDE THIS ISSUE:

QLD & Vic Activity Reports, Trip to Western NSW 2001
A Trip to remember Part 2, Conservation Status update -
G. divaricata, G. molyneuxii, Review of Flora of Australia Vol. 17A: Proteaceae 2, Grevillea, *G. cravenii*, In the Garden, Vale - Dave Gordon, Net Chat, Horticulture and lots more ...

QLD ACTIVITY REPORTS

from Elaine Jell

OCTOBER 2001

On Sunday 28 October, 32 Grevillea Study Group members met at the home of Gordon and Maria Reynolds at Hampton on the Darling Downs, 34 km along the New England Highway north of Toowoomba.

The large level block is tastefully planted out with a wide variety of native plants obviously flourishing in the red soil. This is a beautiful garden, and has featured in the Open Garden Scheme.

Grevilleas are a feature of the garden, and the subject for the day., "Grevilleas in frosty conditions" quite appropriate as in winter the ground temperature can be as low as -7°C.

This winter, Hampton experienced severe frosts. Grafted grevilleas suffered considerably and were cut back severely - but are shooting again. Gordon wondered if once the plants experience a severe frost it toughens them up? Silky oak rootstock does not fare well, and more plants on their own roots are being trialled. In particular, *G. arenaria* survives well in the conditions on its own roots.

The toughest are the *G. victoriae*. Gordon and Maria find *G. wickhamii* and *G. agrifolia* have the ability to come back after frost, but they have lost 5 *G. formosa*.

It was interesting for our coast dwellers to find most of the grevilleas we grow flourishing so well on the Downs. The soil is much better which is an added advantage. Gordon and Maria revealed one of the secrets of their success to be a handful of blood and bone in every hole they dig before planting. To sum up, it was agreed that "frost appears to be another form of pruning".

Also discussed briefly at the meeting was the ongoing trial of smoke-treated vermiculite. Two members reported no apparent difference in their trials. It is the subject of the next meeting so further discussion was held over until then.

Members were thanked for their support of the recent Flower Show at Mt Gravatt Showground. This venue is proving to be ideal and each year the show becomes bigger and better, and is an excellent opportunity for us to introduce to the general public the many grevilleas suitable for most conditions. Having specimens in flower is essential.

Merv Hodge shared with us his success in transplanting seedlings. Instead of digging up and carefully trying to transfer the rootball complete with surrounding soil, simply pluck the seedling out of the ground and basically treat it as a cutting with roots already started. Don't let the plant dehydrate! Place in a pot and cover with a 2 litre plastic milk bottle. (Cut the bottom portion from the bottle, remove screw top lid, and use this opening for air movement and watering). Place pot in a shady place.



G. agrifolia
The Grevillea
Book II

NOVEMBER 2001

Once again there was good attendance from members at our November meeting at the home of Fred and Joy McKew. The McKews live on a two acre block at Logan Village approximately 40km south of Brisbane.

Following the prolonged drought there has been some good rain, and *G. baileyana* was at its best. Shrubby in growth, this specimen was covered in flowers from the top of the tree to where the branches almost touched the ground. *G. stenomera* and *G. Chinchilla* were also in full bloom at this time.

The subject for the meeting was "Smoke and Vermiculite Effects". As we had partly covered this subject at the last meeting members had little to add. Our hostess Joy had conducted her own experiment with no advantage evident from the smoke treatment. Another member advised the University of Queensland was currently working on smoke treatment with no practical results to report as yet. The subject was closed with the suggestion, "if you are having success with other means, why change?"

Before closing the meeting a member fascinated us with promising specimens of hybrid seedlings from her garden. The popular vote went to her "Peaches and Cream" a very attractive plant with lime green new growth and flowers progressing from cream to apricot with style ends orange. Several others, including seedlings thought to be of *G. "Majestic"* and *G. "Superb"* also appear to have retail market potential. We will be watching and waiting.

JANUARY 2002

Our first meeting for the year was held at the home of Annabelle and Kerry Rathie. Thirty-three members travelled far and wide to Greenbank on the south-western outskirts of Brisbane, with a good representation from Toowoomba on the Darling Downs.

The subject for the meeting was "Grevilleas for Heavy Soils". Our Darling Downs friends shared their experiences with the heavy black soil they struggle with on the downs. Another member remembered planting in clay so difficult to dig, it took 3 days to dig a hole which was then filled with water and left to wait for the water to soften the area. The softened clay was mounded and mixed with gypsum. After 10 years the soil was still friable.

Mounding and mixing with gypsum seems to be the answer to our heavy soil problems here in Queensland. Good drainage is essential. Raised beds are also recommended by the Darling Downs members. Just before Christmas one member registered 14" of rain over a 3 month period. He is adamant that raised beds saved his gardens from ruin.

Grevilleas robusta and *venusta* are found to survive in our heavy soft conditions as are *G. hilliana*, *G. baileyana* and *G. helmsiae*. Hybrids such as "Honey Gem" and "Misty Pink" also do well once established and require very little water.

One member found a form of *G. pteridifolia* in her garden did not perform well in heavy soil. A cutting from an unknown grevillea - thought to be *G. arenaria* or *G. masonii* - was passed around. The plant is growing with little attention in heavy clay soil.

The meeting closed with the usual rolling raffle, but not before one of our typical 'lively discussions', this time centred around the successful growing of seedlings. As in any large group there were many and varied opinions, but importantly,

VIC ACTIVITY REPORTS

Results of Survey of Members 2001:

Thanks to the 20 members who responded to the questionnaire. Those who expressed an interest in our scheduled activities received special notification about our field trips. Two advised they were no longer members of the GSG. Of the remaining 18:

- 17 propagate grevilleas,
- 16 were interested in participating in local field trips or garden visits,
- 17 in exchanging cuttings,
- 7 in extended field trips,
- 7 attended APS Vic quarterly meetings in their areas - 6 in other areas,
- 8 expressed an interest in an excursion in the Rushworth Forest, and
- 7 in the Field Trip to Riverina in November.

August 29 2001:

Garden visit to Bacchus Marsh, Greendale and Gordon and local excursion

Many thanks to Don and Jean Weybury for hosting a return visit to their garden and locality. We were dismayed to see the extent of vandalism of the lovely APS plantation at Darley Park, featuring many proteaceae, eucalypts and eremophilas. The Weybury arboretum at Greendale is always a pleasure to visit. After lunch Don and Jean took us on an excursion to see *Grevillea alpina* in the Lerderderg National Park and then to the State Forest along Mt Blackwood Road where *Epacris impressa* produces a beautiful display. Then we proceeded up the Western Freeway for a return visit to see Andrew Billinghurst's interesting garden at Gordon, featuring especially grevilleas and eucalypts.

Unfortunately, due to the inexperience of car #6, the tail car (#7) missed the turn-off onto Mt Blackwood Road, and attempted to rejoin the party at Gordon, but left Andrew Billinghurst's house five minutes before we arrived. The leaders and organisers take their share of responsibility for this and apologise to those who missed out. To help minimise such problems in future, I have drafted "CONVOY GUIDELINES" for leaders and participants and would appreciate any comments and amendments.

August 2001:

Grevillea rosmarinifolia in Rushworth State Forest

En route to the APS Victoria Quarterly meeting hosted by the Shepparton District Group, Regina and I, following instructions of Cynthia and Ted Beasley, and at the request of Peter Olde, sought and found a small population of *Grevillea rosmarinifolia* of various colours along Darrochs Road, although we found neither *G. alpina* nor previously reported hybrids in the vicinity. We saw a few red-flowered *G. alpina* plants in Gobarup reserve and many on Growlers Hill around the tower in Rushworth.

These latter plants were low and dense with small rather inconspicuous greenish-yellow and white conflorescences.

On the Sunday after the visit to Paul and Barbara Kennedy's garden, a few of us returned to Growlers Hill Reserve and saw many more *G. alpina* there (and on Dunlop Hill north of Rushworth), but not *G. rosmarinifolia* reported to occur there.

Ian Howell who has a fine nursery and display garden at Tatura, visited by the participants during the weekend, took us to a site on the Rushworth-Tatura road about 18 km from Tatura boundary to see a small population of *G. rosmarinifolia* (we saw one plant) and a hybrid with *G. alpina* nearby.

November 2-5 2001

Field Trip to Riverina:

Participants: Matthew Hurst (leader), Peter Olde, Ray Brown, Tony Henderson, Bruce Wallace, Gordon Meiklejohn, Hessel and Dot Saunders, Andrew Billinghurst, Neil Marriott, Ian Evans, Martin Rigg, Diana Leggat, Jan and Alan Hall, Max & Regina McDowall, John Gibbons and Paul Carmen.

This was a most enjoyable and successful excursion ranging from Temora (Ingalba and Puchewan Flora Reserves) to the Cocaparra Ranges near Griffith, then to Galore Hill near Lockhart, Livingstone National Park and Nest Hill Nature Reserve, a visit to 'Yamboona' private land northeast of Holbrook and finishing near Tarcutta. NSW participants returned home via Young.

Seven grevillea species were observed. We saw *Grevillea wirajeri* at Ingalba, *G. anethifolia* and the many and varied forms of *G. rosmarinifolia* of the fine-leaved and grey-leaved Rankins Springs type populations near Barellan, and another form with hybrids around a railway cutting at Kapooka on the Olympic Highway.

At 'Yamboona' we saw some spectacular large upright forms of *Grevillea floribunda* and hybrids with *G. lanigera*.

Hybrids of *G. polybractea* and *G. lanigera* were seen at Nest Hill Nature Reserve in Livingston NP, while *G. floribunda* was seen in the Cocaparra Range and Ingalba and Puchewan Flora Reserves.

A bushy (2 m) small-flowered form of *G. alpina* was seen along Lady Smith Drive W of the Hume Highway south of Tarcutta.

Personal Note:

En route to Melbourne, Regina and I visited John Gibbons's nursery south of Wangaratta, and David and Pam Shiell's new nursery and garden in Murchison Road, Violet Town where we swapped notes on *Grevillea alpina*.

Travelling south on the Hume Freeway at David's advice we stopped off the tarmac 500 m south of the "Tallarook Exit 2 km" sign to look at a good stand of *Grevillea alpina* to 2 m in height with *Dillwynia phylicoides*, *Cheiranthera cyanea*, *Acacia acinacea*, *Tetratheca ciliata* and *Hibbertia sericea*.

Extended Field Trip to Labertouche, Rosedale & Licola

Checklists of Flora in the areas visited have been made from the Viridans CD "Wild Plants in Victoria" 1999

Grevilleas in the area: *G. australis*, *chrysophaea*, *lanigera*, *miquelianiana*, *victoriae*, *?rosmarinifolia* (near Morwell).

Rutaceae in the area: *Asterolasia asteriscophora*; *Boronia anemonifolia*, *citrata*, *parviflora*; *Correa lawrenceana*, *reflexa*; *Crowea exalata*; *Leionema lamprophyllum*, *phylicifolium*; *Phebalium squamulosum* ssp.?; *Philotheeca trachyphyllea*, *verrucosa*; *Zieria arborescens*, *cytisoides*, *robusta*, *veronicae*.

Intending participants please contact Max McDowall (03) 9850 3411 or EMAIL maxamcd@melbpc.org.au to record an expression of interest. Further details or changes of plan may be posted in the respective three study group newsletters and by mail/EMAIL to those responding.

Please note that prior registration is essential on extended field trips with details of dates of participation, vehicle (and caravan) description (4WD?) and registration number(s), list of passengers, mobile phone numbers and home contact details, so that a printed list of these details can be distributed to participants at the start of the trip.



IN THE WILD



Field Trip to Western New South Wales 2001

P. Olde

Day 1. Friday November 2

Arrive at Ingalba Flora Reserve midday for lunch - all arriving around the same time. Visit *G. wiradjuri* and *G. floribunda* subsp. *floribunda*. Both in flower. *G. wiradjuri* being apparently pollinated by flies. We observe that this low-growing form is not lignotuberous as first thought but rather single-stemmed and strongly branching near the base.

A few km further along the highway *G. floribunda* appears as a tall, robust plant in habitat similar to that at Ingalba. One plant exceeded 3 m in height. It also occurs here with *G. wiradjuri*.

Refuel at Ardlethan where we receive a tip from a local completely out of the blue. At Moombooldool 10 km east of Barellan we crossed the railway line and travelled north (towards Sandy Creek) then travelled west along Gunters Lane, known locally as 'Grevillea Lane' which is on a red sandy loam with a strong *Eucalyptus-Callitris* association.

This short road was a complete surprise as it yielded a rich roadside flora abundant with numerous genera including several acacias (*Acacia triptera* was memorable), *Prostanthera aspalathoides* (in flower), numerous peas, *Melaleuca uncinata*, and in addition containing three *Grevillea* species, *G. floribunda* subsp. *floribunda*, *G. anethifolia* and *G. rosmarinifolia* subsp. *glabella*.

An unusual plant strongly similar to *G. floribunda* was found at the first stop. It had creamy-white flowers and appeared to be of hybrid origin possibly with *G. rosmarinifolia*. The *G. rosmarinifolia* appears to conform with subsp. *glabella* which was collected on the Oxley expedition of 1817. Many plants (though not all) have hairs on the style a feature usually associated with hybrid populations of this species. At the eastern end of this land *G. rosmarinifolia* had green foliage but at the western end where it meets with Spencers Lane the foliage was grey and the flowers deep red, similar to some of the more brilliant forms of *G. lavandulacea*. Most, though again not all, of these plants have hairy styles. One wonders whether there has been some gene flow from the *G. floribunda* into *G. rosmarinifolia* over the whole area.

We then headed towards Weethalle from Barellan and about 20 km from Weethalle we stopped for a look at more *G. rosmarinifolia*. These plants had short green, terete leaves and quite small flowers. The conditions here appeared to be extremely dry. Next stop was about 20 km from Rankins Springs where we investigated more *G. rosmarinifolia* and also *G. anethifolia*. The plants of *G. anethifolia* appeared quite different to the population sampled earlier, having coarser and longer leaf lobes. Both populations of this species were clearly root-suckering. Another interesting native species here was a pale blue scaevola (unidentified at this stage) suckering in the alkaline, red sand and *Philotheeca difformis*. It was quite a floristically rich area here beside the railway line.

We camped out near Cocoparra Range just outside the National Park boundary and a great night was had by all participants.

Day 2. Saturday November 3

We visited the Cocoparra National Park, finding *G. floribunda* subsp. *floribunda* on the track leading to the trig station with *Pomaderris andromedifolia* and *Phebalium Glandulosum*. *G. anethifolia* is also recorded for this range but we did not see it. There are also several rare and unusual species recorded for this area that we were unable to locate in the time allowed but we thank Max McDowall for providing a flora list of the Range to everyone which proved helpful both here and elsewhere.

We next searched the Nericon for what was thought (erroneously) to be the last *Grevillea ilicifolia* in New South Wales. Although according to the GPS we had reached the correct spot, there was no sign of the plant. There had been recent clearing. We understand that the plant had been fenced off but we saw no sign of this and we left the area a little deflated but determined to obtain good ground information beforehand. GPS locations can be wildly inaccurate because the Map Datum on which they are based is not given.

After lunch in the park of the magnificent town of Griffith, we travelled to the Kapooka area near Wagga Wagga. Here, along the rail line near the army base we looked at *G. rosmarinifolia* and *G. lanigera*. We determined that the small population of *G. lanigera* was natural to the area but that the *G. rosmarinifolia* was a blow-in and was contaminating the genes such that there were numerous hybrids appearing on both sides of the rail cutting, some apparently with horticultural merit. All had finished flowering unfortunately.

We made camp at the base of Livingstone National Park where the local tennis hall had been made available. It was rumoured that the tin hall reverberated to the chainsaws of many relaxed sleepers that night (I slept outside on my own).

Day 3. Sunday November 4.

We car-pooled everyone into the available 4 WDs and headed up the rocky slopes for a look at the local form of *G. lanigera* that suckered here. It was only a low-growing sparse population under the *Eucalyptus macrorhyncha* understory. A large population of flowering *Xanthorrhoea australis* under a pure stand of *Euc. rossii* was an added bonus to the trip as was a large solitary plant of unknown hybrid grevillea origin, probably having *G. floribunda* as one of the parents.

We then explored Pulletop National Park where we discovered an amazing conjunction of *Grevillea lanigera* and *G. polybractea* growing together among a swathe of hybrid intermediates. The 'pollies' were only c. 30-50 cm high and with bright orange and red flowers. At least one plant was suckering. Regrettably most of the intermediates had finished flowering and it was difficult to gauge their horticultural merit. The plants were growing most abundantly beside the track in the cleared section. However the natural overstory was *Euc. polyanthemos* with *Xanthorrhoea minor*, *Joycea pallida* (wallaby grass), *Acacia lanigera* and *Stypandra glauca* association. Soil was a shaly loam with laterite and quartzite pebbles.

IN THE WILD (continued)

Our lunch stop was at Joy and Bill Wearne's property near Holbrook where a most amazing hybrid swarm of *G. floribunda* and *G. lanigera* was being cared for in a beautiful natural area of bushland that included a sheltered gully with *Dicksonia antarctica* and *Blechnum cartilagineum*.

But I digress. First to the grevilleas. As we drove up the hill we came on what appeared to be swampy ground with *Leptospermum ?brevipes* and robust plants of *G. floribunda*. But all was not what it seemed. Each of these plants had different flower colours habit and foliage and some were extremely large and colourful. These were hybrids with *G. lanigera* that was suckering in the creek line and on the margins of the hill in forest. What a rich and colourful sight these plants presented. They certainly excited the members and we all voted for a return in August when hopefully most would be in flower. Thanks also to Martin Rigg here who acted as a guide to some of the members who wanted to visit the fern gully as described above.

The day concluded with a visit to *G. alpina* small-flower form that was flowering still at Keajura. I had never seen these plants which in fact reminded me greatly of the Chiltern forest form. A lovely population of plants that was growing with *Euc. rossii* and *Acacia lanigera*.

We made camp near Tarcutta in a Travelling Stock Route in a beautiful field of native grassy woodland, much beloved of our Victorian expert Neil Marriott. Beautiful plants of *Chrysocephalus* on tall stems with yellow clustered heads, purple *Cheiranthera* and native orchids abounded under the trees. Neil even spotted an *Antechinus* running up the branch of a tree.

For most this was the end of the trip. For some, a memorable final day lay ahead, thanks to Paul Carmen and Cathy Hook.

Day 4 Monday November 5

We headed off to Grenfell and from there headed northeast turning off finally onto Major West Road. This bushland is particularly loved by Cathy and Paul and it is easy to see why. Very diverse and with no less than four grevilleas to be seen. First we came upon *G. floribunda* subsp. *floribunda* flowering beside the road. After the usual admiring glances we left it our tea-bags as a keepsake and drove less than 5 km on to where we suddenly entered *G. polybractea* territory which was abundant. It is easy to see the common parentage of these two species; both have fruits with a persistent perianth and very similar flowers (though of a different colour and indumentum). While flowering had diminished because of the lateness of the season it was felt that these plants might represent a different taxon to the Victorian plants currently combined in this species. Flowers were bright yellow and red, similar in many ways to *G. alpina*. Growing with this species was *G. ramosissima* subsp. *ramosissima*. At least some of these plants were root-suckering but they had finished flowering.

Around the Ironbarks Picnic Area in Conimbla National Park we were shown a diminutive form of *G. lanigera*, languishing it must be said beneath the moisture-sucking trees of the Ironbark forest. These plants were suckering lightly in the undergrowth but scarcely exceeded 0.15 cm in height. This is the most northerly population of *G. lanigera* and is close to the form originally described as *G. ericifolia*.

The trip ended here for everyone and we bade farewell to our Victorian and Canberran companions. Sincere thanks must go to Matt Hurst who organised this safari for a job well done.

NSW Programme 2002

Sat - Sun April 20-21 10 am - 4 pm

Autumn Plant Sale

Help needed on Friday April 19 as well.

Don Burke will open show 12 noon Saturday April 20.

Wednesday May 15 10 am

Place: Plant Breeding Institute
University of Sydney Research Farm,
105 Cobbitty Rd., Cobbitty

Speaker: Peter Abell 9351 8825

Subject: Progress towards a focus flower for Grevillea.

Please check with Peter Olde 9543 2242 before attending.

Wednesday June 12 10 am

Place: University of Wollongong
Subject: DNA Fingerprinting of Grevillea populations
Speaker: Annette Usher 4421 8385 ausher@uow.edu.au

Annette will discuss her work and we will examine how we can tell where a plant comes from, its significance, and how quickly genetic change is transmitted through a population and possibly the processes that lead to speciation. In the afternoon, if time permits, we will examine local populations of *G. mucronulata* and *G. capitellata* on Mt Keira and nearby.

Wednesday July 31 9.30 am

Place: 138 Fowler Rd., Illawong

Subject: Results of 2001 expedition.

New WA Grevillea Species and *Grevillea buxifolia*.

Speaker: Peter Olde

In the afternoon, perhaps a short bush-walk or a short visit to a nearby garden to examine the effects of an unusual mulch.

Saturday August 24 9.30 am

Place: 107 Pitt Town Rd., McGraths Hill Phone 4577 2831
jomo@pnc.com.au

Subject: Propagation by cutting and grafting. My way

Speaker: Mark Ross

Following the talk a short collecting trip in the Windsor - Wiseman's Ferry - Dural area focussing on *Grevillea buxifolia*.

Just a bit more info on what I do here. I graft about 30 or so varieties of grevilleas, 2 varieties of hakeas. I'm also working on grafting of some Isopogons and will be attempting some eremaea grafts shortly. I also grow hybrid grevilleas for the nursery trade. All this is done in my spare time between my job as a production manager for a large wholesale nursery.

Field Trip to South Coast

Wednesday October 2- Saturday October 5

A Trip to Remember

PART 2

Neil Marriott, Box 107, Stawell, Vic. 3380. Email:

After zigzagging our way down through the inland from Mukinbudin to the Newdegate area, our “Great Grevillea Discovery Trip” then headed south to the wonderful Fitzgerald River National Park. Here we had made plans to meet up with Nathan McQuoid, ex ranger of this superb park and expert on the WA flora.

Nathan is also the co-author of the wonderful new “*Guide To The Wildflowers Of South West Australia*”, undoubtedly one of the very best field guides on the market, and a must for those exploring in the West.

Nathan had booked us in to stay at the Twertup Field Studies Centre at the abandoned spongolite quarry in the National Park. The Field Centre has been located on the cliffline 50-100 m above a former seafloor. Talk about good timing; both parties arrived within minutes of each other, Nathan coming from Perth and Peter and I from the outback!!

Nathan brought with him a lovely couple from England who have fallen in love with the West. They have been flying over annually for the last 18 or so years!! I wonder how many of us have done the exploring of this wonderful state that they have??

After a couple of bottles of red and long discussions into the night we settled down eager for tomorrow’s exploration of the park.

An early walk in the valley of the sea-floor among a profusion of *Euc. platypus* produced some interesting plants of *G. pectinata* and *G. tripartita* which proliferated here, but no other *Grevillea* species. There were plenty of other plants though, including a newly described Eucalypt, *E. annulata*.

Heading off along Hammersley Drive we soon located more *Grevillea tripartita* –they were only young plants as vast areas of the park had been burnt out by wildfires in the last couple of years.

Shortly after, the road drops down and crosses West River where the soils change to granite-derived and immediately, on the rises overlooking the river, we came upon *Grevillea rigida* subsp *distans*, a species associated only with this soil type.

Rising up onto the open plain again we came upon what looked like *Grevillea macrostylis*. This was one of the species we were investigating to determine whether it is distinct and reproductively isolated from *Grevillea tripartita*, or whether it should more properly be regarded as a subspecies, or whether it is an extreme variation of the one species.

It did not take long before we found plants with intermediate foliage, ranging from almost *Grevillea macrostylis* through to broad-leaved *Grevillea tripartita*, all growing together.

We could clearly see that *Grevillea macrostylis* does not merit recognition as a species in its own right, as we believed in our book.

At the extremes of both species’ ranges they are quite different looking plants, however where they meet in the Fitzgerald River National Park they intergrade. Consequently we now support recognition of broad-leaved plants of *Grevillea tripartita* as subsp. *macrostylis*.

Growing in the same area we found the coastal form of *Grevillea dolichopoda*. It has smoother, slightly longer leaves than the typical form and has been confused for years with *Grevillea haplantha* due to their superficial similarity.

Turning into Quoin Head Track we were impressed with the beautiful Qualup Bells *Pimelea physodes* with their large pendulous bracted flowers. There were all shades, from greenish-yellow through to the deepest burgundy red.

As the track dropped down to a creek we came upon deeply divided leaf specimens of *Grevillea pectinata* with attractive pink flowers.

Further on as we ascended a low heathy ridge we came upon one of the National Park’s endemics, *Grevillea fistulosa*. These were erect shrubs to around 1m with masses of showy orange-red flowers with curious tiny styles that barely protrude from the perianth. We scoured the population but could find no sign of variation in flower colour or habit etc.

As we approached Quoin Head, we came upon *Grevillea nudiflora*. These were low spreading shrubs to around 0.3m x 1m with typical narrow leaves and appeared to be suckering.

Quoin Head itself is a beautiful coastal headland abundant with low shrubs beaten down by onshore winds, and including several rare and endangered mallee eucalypts, some with extremely large and horticulturally-desirable flowers.

We wandered along the cliffs admiring the scenery and marvelling at the diverse flora.

Growing in tiny pockets of soil in the massive rock slabs just above the high tide mark we found a beautiful blue flowered Lobelia. It would make a lovely plant for the garden, and the fact that it would undoubtedly be inundated with salt water during stormy weather should make it a potentially valuable plant for growing in salt affected soils.

One of the grevilleas Peter and I have been searching for quite a few years is McGillivray’s *Grevillea tetragonoloba* Race B, known only from a few collections around Bremer Bay, including Doubtful Island. We felt that it would be worthwhile checking out the mainland adjacent to the island near Hood Point just in case! This entailed travelling along a rough and at times treacherous boggy 4WD track out to Point Hood –south of the southern boundary of the Park and the home of a tumble of run-down fishermen’s shacks.

The entire coastline along this part of the West is spectacular, and Point Hood was no exception, huge slabs of granite cascading down to the seashore.

No sooner had we driven onto the high headland above the beach than we came upon big rounded grevilleas with large bright red toothbrush flowers and white branchlets. Here, without any need for further painstaking search was our quarry, “Race B”. However it was immediately apparent that it was not a form of *G. tetragonoloba* but a new and beautiful *Grevillea* species!

IN THE WILD (continued)

As well as the new *Grevillea* on Point Hood there was a multitude of other showy rounded shrubs, mostly low and compact due to the exposed coastal conditions.

From high up on the headland, the view looking back along the coastline is breathtaking – crystal clear azure-blue water, dazzling white beaches and pristine green bushland make for a memorable sight. Why this huge area is not in the National Park is beyond me!

Continuing further west along the coastline, we visited a little estuary with the quaint name of Boat Harbour. We were searching here for a Ken Newbey collection of one of the white-flowered grevilleas that McGill had not been able to assign to species.

Here we again found the filth and squalor of numerous old run-down fishing shacks marring an area of immense natural beauty. Back here in the East such misuse of our natural environment would not be tolerated, although I can remember old fishing shacks along parts of our coastline when I was a boy – most have now long gone, and our beaches are free to be used (and not abused) by everyone!! Let us hope that the West Australian government eventually “pulls its finger out” (excuse my French) and does something about this misuse of our coastline.

Along a track on the hillside above the beach we found a beautiful low form of *Grevillea nudiflora* with exceptionally broad leaves and flowers on quite short stems. It is so distinct that it may well warrant recognition as a new subspecies.

Also here we found a very attractive low form of *Grevillea coccinea*, with broad leaves and showy bright red toothbrush flowers. Unfortunately, our quarry eluded us.

From Boat Harbour we headed on to Albany where we caught up with old friends Max and Peter Luscombe at their beautiful Morande Native Plant nursery and Nindethana Seed Supply. Here one can purchase an extensive range of indigenous Albany district plants, particularly understorey species, as well as Australia's most comprehensive range of native plant seed.

Max has an unusual and successful method of propagating plants which has been detailed in another article. Peter also brought along a few of the naturally-occurring species growing on his property including *G. tetragonoloba*.

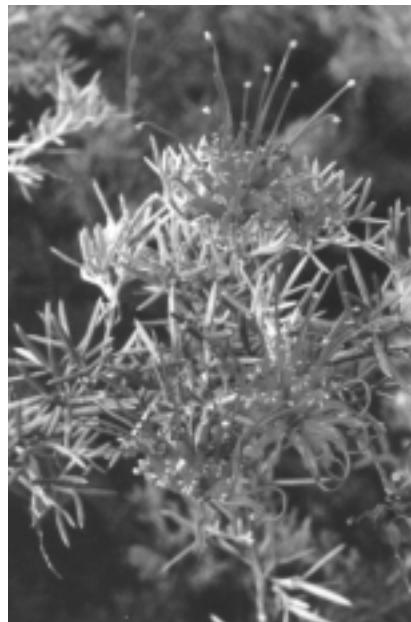
This specimen represents the most westerly known for the species, much further than previously recorded.

After a couple of days with Max and Peter we headed inland to Mt Barker and then west along the Muir Highway.

Just west of Pardellup Rd., Max gave us the location for a beautiful prostrate form of *Grevillea depauperata*. This name was given to the species by Robert Brown and we are not exactly sure what he was referring to.

The name ‘depauperata’ means starved or reduced, possibly in reference to the sparse foliage or open habit of many forms. At this site however the plants formed beautiful low mats with massed displays of brilliant fiery red flowers. In my garden it has become one of my most spectacular groundcovers.

A recently described species, the Lake Unicup Grevillea *Grevillea acropogon* is a very rare and localised species from near Lake Unicup west of Frankland. We had searched for this species previously, only to find that the location we had been given was incorrect. This time we were determined to find it and came armed with a GPS unit so we could pinpoint the location. We scoured the site, finding a beautiful form of *Grevillea*



Grevillea acropogon

leptobotrys with deeply divided very fine foliage and showy racemes of bright pink flowers. But alas there was no Unicup Grevillea, despite standing on the exact GPS site as given to us by Bob Makinson! Sadly this was on the side of a dam in the middle of a cow paddock.

Reluctant to admit defeat, but now running short of time, we headed off down the Mt Barker-Denmark Rd to the Mitchell River, in the heart of the wet Karri Forests. Here an unusual divided leaf form of *Grevillea diversifolia* subsp *subtersericata* had been recorded.

We searched the area, finding many plants – almost certainly a new subspecies.

As well in this area we found *Grevillea trifida* –low shrubby form and *Grevillea quercifolia* the Oak-leaf Grevillea with its beautiful long toothed leaves and showy pinky-mauve flowers.

Prominent in this area were magnificent large plants of the beautiful *Crowea angustifolia* in full flower, as well as White Myrtle *Hypocalymma angustifolia* plants with the most spectacularly red flowers we had ever seen.

We then headed back through Frankland to investigate a broad leaf form of *Grevillea trifida*, which had been recorded on a road reserve to the east of that town.

On arrival at the site we immediately found the plant and just as immediately realised that here we had a most distinct new form of *Grevillea trifida*. The new plants have very coarse, leathery wedge shaped leaves, grow only around 0.3 m high and sucker vigorously through the grassy undergrowth.

At this site we also found *Grevillea pulchella* subsp *ascendens*, while a little further up the road we found another lovely form of *Grevillea leptobotrys*. What an attractive area!

An unusual form of *G. depauperata* with long trailing branches was also collected here.

Heading up to the Albany Highway we would have loved to have located the beautiful *Grevillea cirsifolia* in the Jarrah forests near Kojonup. Unfortunately we did not have the precise location data, and without it we failed to locate this Priority 1 species.

IN THE WILD (continued)

However we did find spectacular mats of *Dryandra lepidorrhiza* growing on a sandy rise over laterite. Sadly the site was being whittled away by gravel extraction, and before too long the Dryandra and all the other superb wildflowers at this site will be all but gone!!

North of Bannister in the heart of the wonderful Darling Range Jarrah forests, we stopped to admire a beautiful dwarf suckering population of *Grevillea leptobotrys*. This must surely be one of the most variable of all grevilleas in the West that still remains unresolved taxonomically.

Also at this site we found massed displays of other low shrubs including *Grevillea pulchella* subsp *adscendens*, *Chorizema dicksonii* and not much further north the showy *Pimelea spectabilis*, including several with showy pink flowers.

Continuing our dash back north we wanted to find a most unusual simple leaf form of *Grevillea leptobotrys* in Monadnocks Conservation Park between the Albany Highway and the Brookton Highway, to the south of the Canning Reservoir.

At the turnoff on the Albany Highway we found a population of *Grevillea manglesii* subsp *dissecta*, including several with attractive pink flowers.

Heading east into the Marri forest we stumbled on a population of *Grevillea pimeleoides*.

Growing to around 1 metre, they formed attractive rounded shrubs with massed yellow and orange flowers, with several characteristics that may warrant the recognition of this population as a distinct subspecies.

We then headed along Qualen Rd where we located the amazing simple-leaf form of *Grevillea leptobotrys*, looking the spitting image of a clump of grass!! Anyone not seeing the plants in flower would certainly be fooled. This also will most likely finish up as a new subspecies.

Unfortunately all material sent back for propagation failed to take, so a return trip to this site will be needed.

Another suspected new Grevillea species identified by Peter had been collected in the hills to the west of York by Fred. Hort, a retired school teacher and one of Perth Herbarium's volunteer collectors. We were keen to locate it and eventually did so on Gunapin Ridge.

The plants were lightly scattered through the open forest, and were full of fine white flowers. They formed sparse open shrubs, with bushy bases topped with long lanky flowering branches up to 2m and occasionally even 3m in height. They were clearly a new species, with closest affinities to *Grevillea acrobotrys* from way up near Mt Lesueur north of Badgingarra!

At another population nearby of this new Grevillea, we also found several attractive pink flowered forms as well as the rare *Grevillea scabra*, *Grevillea synapheae* subsp *synapheae*, and numerous other showy shrubs including the beautiful *Beaufortia purpurea* and the spectacular *Thomasia glutinosa* with long spikes of showy mauve-pink flowers.

A most interesting area, and one I would love to get back to check out more thoroughly.

At the risk of wasting time on a wild goose chase we headed east through York to investigate yet another supposed new *Grevillea* species recorded at the base of the Needling Hills.

Sadly most of this area is now cleared, and what is not cleared is infested with invasive exotic annual grasses. Not exactly the best location to look for new species! However we checked out every road, track and patch of bush in the area and eventually discovered a gravel reserve with relatively intact native *Casuarina* Woodland vegetation. Here we found not a new species but a number of natural hybrids between *Grevillea vestita* and *Grevillea paniculata*. They formed attractive rounded shrubs to c. 1.5m high. Almost certainly a sample of this population was the "unnamed species" collected for the area.

Arriving back in Perth, I quickly sorted out my flight details and found I had a spare day. What does the normal tourist do with a spare day in Perth? Probably looks around Kings Park, the casino, Rottnest Island and the like. Not these two tourists –but then we are far from normal!!! Off we headed up the Great Northern Highway to look for several more rare grevilleas of course!!

Our first stop was north of Bindoon where the recently named *Grevillea synapheae* subsp *latiloba* grows.

We had no trouble finding the plants as they grow right by the roadside and are a massed display of showy cream catkin-like flowers.

Not much further on we found another population growing with the extremely rare *Grevillea drummondii*. This is a lovely small shrub less than 1metre in height with massed small creamy-green flowers that curiously turn bright rose-red as they mature. This species is thriving and in full flower in my garden at present. It makes a delightful small compact shrub in the garden.

On the way back to Perth we inspected a population of beautiful prostrate *Grevillea bipinnatifida* growing along the road to Chittering Valley.

Sadly spraying, weeds and roadworks had destroyed most of the population - a common story in the West.

We headed up into the Darling Range, saddened by the massive weed invasions that had occurred since our last visit.

In a bushland area in the foothills we came upon a colony of beautiful *scaevolas* with huge mauve flowers.

Just out of Toodyay we inspected *Grevillea candolleana*, another extremely rare dwarf Grevillea, this one with massed cream spider flowers.

Fortunately at present this species is holding on in an area unaffected by humans and their weeds!!

Reluctantly we headed back into Perth, not looking forward to the long flight back east, while at the same time elated at what we had achieved in four short weeks.

It had been a momentous trip, uncovering several new species and numerous new subspecies of our favorite genus. We came to realise that every piece of bush in the West has the potential to be something special – there is nowhere else in the world where new species of plants can be discovered growing in small bushland remnants, be they on a roadside or on private property.

Do yourself a favour and take a trip to the West while you still can! And keep your eyes out for anything new. Who knows what treasures you may find?

If you DO find a plant that you cannot identify, take a flowering specimen, press it in newspaper and drop it in the mail, complete with location and contact details to myself or Peter Olde. You just might be helping to save yet another rare *Grevillea*.

CONSERVATION

Threatened Species Conservation Act 1995

NSW Scientific Committee Final Determination

The Scientific Committee, established by the Threatened Species Conservation Act, has made a Final Determination to list *Grevillea divaricata* R.Br., a shrub as an ENDANGERED SPECIES on Part 1 of Schedule 1 of the Act. Listing is provided for by Part 2 of the Act.

The Scientific Committee has found that:

1. *Grevillea divaricata* R.Br. (Proteaceae) is described in the Flora of Australia. Volume 17A. Proteaceae 2, Grevillea, by Makinson (2000), from which the following is taken in full:

"Low shrub to ?40 cm tall. Leaves entire, well spaced along branchlets, spreading, linear, often gently curved, 0.8-1.3 cm long, 0.5-0.6 mm wide; margins revolute; upper surface scabrid; lower surface enclosed including midvein and 1-grooved, or rarely slightly exposed near leaf base. Inflorescence terminal, simple to 3-branched; unit inflorescence a decurved 1-4 flowered loose cluster, opening uncertain; floral rachis 2-6 mm long, glabrous. Flowers acrosticous. Flower colour: not known, probably red or red and cream. Perianth glabrous outside, bearded inside. Pistil c. 16 mm long; ovary shortly stipitate, glabrous or with a few ascending hairs ventrally on basal half; stipe swollen, c. 0.5 mm long, ventrally tomentose; style glabrous, slightly exserted from late bud; pollen-presenter lateral. Fruit and seed not known".

2. *Grevillea divaricata* has been considered as representing a depauperate plant of *G. rosmarinifolia*, however, re-examination of the types indicates that while very closely related, it should be recognised as distinct (Makinson 2000). The differences between *G. divaricata* and *G. rosmarinifolia* are described in Makinson (2000).
3. *Grevillea divaricata* is only known from the Type collection made north of Bathurst. It was last collected in 1823.



4. In view of 2 and 3 above the Scientific Committee is of the opinion that *Grevillea divaricata* is likely to become extinct in nature in NSW unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Proposed Gazettal date: 15/06/01

Exhibition period: 15/06/01 – 20/07/01

Last amended: 15 June 2001

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Grevillea divaricata R. Br. reinstatement of an extinct species.

Grevillea divaricata is a species from New South Wales, first described by Robert Brown in 1830. Subsequently, various authors have either recognised it or considered it to be only a form of *G. rosmarinifolia*.

The most recent review of the genus has seen the species reinstated by Makinson (Flora of Australia 2000) from *G. rosmarinifolia*, where it lay in synonymy. Alas, the last and only collections of this species are those of Cunningham in June, 1823. Type labels of the period variously state that it is a .shrubby plant frequent in the dry, open Forest Lands of the Country North from Bathurst (BM); ...Country north from the Cugeegong River (K); Interior country between Cugeegong and Talbraga (NY)(Source: McGillivray. 1993: 439).

Makinson has recognised this species on the basis of its scabrid leaf upper surface and its apparently lignotuberous or rhizomatous habit (visible on specimens in overseas herbaria). The observations seem fair and reasonable, especially the leaf character, and the recognition is well-founded in my view.

This is the new Holy Grail for Grevillea hunters in New South Wales. Considering that *G. rosmarinifolia* has only recently been re-discovered at the Type locality from where it was last seen in 1825, we should remain optimistic that this species will be re-discovered. A search of Cunningham's journal would be a priority.

It is a pity that the revision does not give more information about likely search areas.

CONSERVATION (continued)

Threatened Species Conservation Act 1995

NSW Scientific Committee Final Determination

The Scientific Committee, established by the Threatened Species Conservation Act, has made a Final Determination to list *Grevillea molyneuxii* D.J. McGillivray as a VULNERABLE SPECIES on Schedule 2 of the Act and to omit reference to this species as an ENDANGERED SPECIES on Part 1 of Schedule 1. Listing of Vulnerable Species is provided for by Part 2 of the Act.

The Scientific Committee has found that:

1. *Grevillea molyneuxii* was first described in 1986 by D. J. McGillivray.
2. *Grevillea molyneuxii* (Proteaceae) is described in the Flora of NSW Vol.2 (Harden, 1991) as a spreading shrub c. 0.2-1 m high. Leaves narrow-oblong or -elliptic to linear, 1.5-4 cm long, mostly 1-4 mm wide, usually pungent, margins entire and angularly recurved, sometimes obscuring the subsericeous lower surface except for the midvein. Inflorescences subsecund, 1.5-3 cm long. Perianth reddish, loosely subsericeous outside, bearded inside. Gynoecium 19.5-21 mm long; ovary stipitate, glabrous; style reddish, glabrous except for minute erect hairs near the apex, pollen presenter oblique. Follicle glabrous. Flowers spring and autumn.
3. The species is restricted to the Tallong-Wingello area, ENE of Goulburn on the southern highlands of New South Wales. When originally described in 1986 it was known from only 3 sites most likely representing one population. Recent surveys of available habitat in the area have located a number of additional sites, most likely representing an additional four populations. The species is still however, very restricted in its distribution with not all areas of apparently suitable habitat containing the species. One population is known from Morton National Park.
4. The species occurs in association with flat sandstone rock platforms at the base of moderate to steep slopes, in very open to somewhat closed heathland bordered by *Eucalyptus stricta*/*Allocasuarina paludosa* woodland. Species commonly found in association with *Grevillea molyneuxii* include *Boronia floribunda*, *Calytrix tetragona*, *Dillwynia ramosissima*, *Grevillea baueri*, *Isopogon anethifolius*, *Micromyrtus ciliata*, *Mirbelia rubrifolia* and *Olax stricta*.
5. The total number of plants now known is estimated to be between 2,500 and 8,000 and several of the known populations have over 500 plants. Numbers are unknown at one population although the species has been recorded as locally abundant at the site.
6. The highly restricted distribution of *Grevillea molyneuxii* increases its susceptibility to local extinction from stochastic or catastrophic events. Other possible threats are impact of vehicles as vehicle tracks pass through three sites. The species would be susceptible to the impact of high fire frequency, but current indications are that the habitat of the species is not burnt frequently.
7. In view of 3, 5 & 6 above the Scientific Committee is of the opinion that the species is not currently considered endangered but is likely to become endangered in nature in NSW unless the circumstances and factors threatening its survival cease to operate.

Proposed Gazettal date: 24/12/99

Exhibition period: 24/12/99 – 4/2/00

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TAXONOMY

Another milestone in the advancing taxonomy of *Grevillea*

Flora of Australia Vol. 17A: Proteaceae 2, Grevillea
Bob Makinson et al

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If any large genus of Australia's flowering plants could have been thought near to reaching closeness to completion of our understanding of its species, *Grevillea* would have been it. Yet, despite being the third comprehensive revision of the genus in seven years, here is another work that confirms that the taxonomic knowledge of Australia's flowering plants is far from complete. Amongst the 452 taxa described (357 species) are 43 new taxa, published in the Appendix to the volume. Several of these only came to light in 1998 during an expedition to parts of the poorly botanised Kimberley region. And several complexes are listed in the introduction as needing further revision. In the first volume of the Flora of Australia written almost entirely by a single author, Bob Makinson of the Australian National Herbarium, Canberra, continues here his huge input into the taxonomy of *Grevillea*, the more remarkable in view of his administrative commitments and it being the third largest flowering plant genus in Australia. The work includes new taxa, recognised by Makinson, and others separately or collaboratively by Grevillea enthusiasts Bill Molyneux and V. Stajsc and knowledgeable regional botanists Mark Barrett and Greg Keighery.

This work, however, is the author's own concept. His view follows on from those in two earlier works: the broad species concept of Don McGillivray to whom Makinson rendered considerable assistance at the National Herbarium of New South Wales (McGillivray & Makinson 1993), and the narrower species concepts of Peter Olde and Neil Marriott (1994-). Many races previously recognised informally have been described as subspecies.

The volume completes the treatment of the Proteaceae in three volumes the largest family so far completed in the Flora. It is particularly welcome in Australian plant systematics as it is a family with a high profile in the historical biogeography and biological and ecological study of the region and in horticulture. The volume is appropriately dedicated to two icons in Proteaceae systematics, Barbara Briggs and the late Lawrie Johnson, the more appropriate as their home-base of the National Herbarium of New South Wales is where Bob Makinson and his mentor Don McGillivray began this long journey in modern *Grevillea* systematics.

The possibly unavoidable reconstitution of generic limits involving the merging of two widely known genera *Hakea* and *Grevillea* (see Barker, Barker & Haegi 2000) is supported, though little further evidence for this is given. It would be surprising if such a large work were free from errors; it will have involved examination of so many specimens over many years and much reworking to meet new formats and to introduce the 10%

new taxa, not to mention changes in circumscription. Comparison with the reviewer's state South Australia and its Flora treatment (Barker 1986) and Census (Barker 1993), for example, shows many taxonomic changes, but also a few errors and omissions. South-eastern region collections of *G. halmaturina*, otherwise resurrected as two subspecies restricted to Kangaroo Island and Eyre Peninsula, respectively, are not dealt with; *G. pterosperma* is not mapped in the NW region of the state where it occurs in the Mann Ranges and Great Victoria Desert; *G. albiflora* was recorded from the NW region of the state; and hybrids between the garden escape *G. rosmarinifolia* and native *G. lavandulacea* are not mentioned whereas other instances of hybridisation, including those of the former with *G. lanigera* are. The South Australian hybrids are important to highlight as examples of the threat of introgression from garden relatives into natural populations.

The Erratum slip instruction to transpose a couplet 27 under the alternative lead 26: left doubt in my mind prompting me to check against the relevant descriptions. A useful policy would be to print the resultant few lines of text, which would have readily fitted on the slip provided.

In such a large group reliance on a single key to all species can be problematic. To assist, keys to the species in each state, including species that might feasibly be included as they occur just over a border, are provided. And rather than maintaining outdated infrageneric taxonomy, large groups have been broken up by recognising informal groups, 33 in all; keys are provided for each informal group. The few taxa that I have keyed out do so readily in the various keys.

What are the changes since this reviewer wrote of the first volume of the Flora Proteaceae series (Barker 1996)? The welcome innovation then of introductory reviews has continued. Specialised morphological terms are now defined and there is a useful discussion on biogeography as it relates to soils, vegetation and climate. The Flora retains its feel of being packed with detail, though with the advantage of the forerunner revisions, it is clear that much descriptive information is omitted in compacting descriptions to conform with the series standards. Notes of differences between confusable species and of variants continue. The call for production of electronic identification tools is being realised, with ABRS itself sponsoring such tools, including one on the Proteaceae.

In conclusion, this is not a reworking of two prior revisions, but a further step forward. Future work on *Grevillea*, however, is heralded in the form of a cladistic study of the tribe and the treatment of species complexes.

Can the enthusiast, let alone the general reader, afford three revisions of just one genus within a decade, totalling several hundred dollars? Here is an example of the desirability of electronic publication, which would surely answer many issues of cost of

TAXONOMY

compilation, publication and purchase. The descriptions in this work are considerably shorter than the prior two revisions (with many characters of the previous works omitted and so no matching full descriptions for this work's new species and subspecies). Presumably, reducing the descriptions to meet publishing standards constrained by cost of hard copy publication is for authors and editors alike a frustrating use of valuable time. The massive duplication of effort in these three revisions and the additional effort caused by meeting different editorial criteria could have been better put to producing an upgradable electronic treatise combining the best points of all of them.

In the 12 months since this review was first drafted, the Sydney and Canberra herbaria and ABRS have produced electronic prototype versions of publications, ABRS (pers.comm) now having digitised unpublished versions of all three Proteaceae volumes. The extent to which Australian plant taxonomic works go electronic remains to be seen, but dwindling human and financial resources and the realisation that readership may greatly increase through ease and reduced cost of access may hasten the move.

And with the move will be increasing pressure to allow flexibility in format to reduce time and resource-hungry endeavours.

Whatever the future brings, this volume of the flora by Bob Makinson provides a valuable authoritative synthesis of *Grevillea* and a substantial base for further advances in knowledge of this key genus in the Australian flora.

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Grevillea cravenii

Peter Olde

Grevillea cravenii is a new species from the Kimberley described in Volume 17A of Flora of Australia. It was first discovered on 9 June 1985 by a group of three botanists, one of them Canberra botanist Lyn Craven after whom the plant has been named. The actual collecting team was P.A. Fryxell, L. Craven & J. McD. Stewart. The collection number 4722 appears to be that of P. Fryxell. The initial discovery came after a collaborative US Department of Agriculture and CSIRO Research team surveyed the land in a plant exploration expedition. A specimen was lodged at Perth (PERTH 01584219) and with the Cotton Branch Herbarium of the US Department of Agriculture.

The specimen which has only foliage and buds was collected in the foothills of the Prince May Range, north of the Prince Regent River. It was found scattered in Eucalypt woodland on alluvial sand at the base of a sandstone outcrop. The shrub was recorded as 60 cm tall, mostly sterile. Dr Lyn Craven also made a collection of the same species which he lodged at the CSIRO herbarium in Canberra (CANB) from an area 20 km east of the mouth of the Prince Regent River.

G. cravenii
Cover Illustration
by Patricia Dundas
Flora of Australia
Vol. 17A: Proteaceae
2, *Grevillea*



G. cravenii
Photo: Matt Barrett
Flora of Australia
Vol. 17A: Proteaceae 2,
Grevillea

These specimens set the mind of second-wave explorers to collect flowering material for description. As part of the Flora of Australia *Grevillea* project, Bob Makinson, Bill Molyneux and Sue Forrester organised their own exploring expedition, part of which is reported in the Jan-Mar 2002 edition of Australian Geographic magazine which features a colour photo of the species. Access to the area is by helicopter only after many days travelling by 4 WD. After landing in the Prince Regent River Nature Reserve they came upon a population of c. 600 plants, only few of which were in flower. However, there was sufficient floristic and seed material to enable a diagnosis.

Perhaps the most extraordinary feature of this species is its visual affinity with the *Grevillea aquifolium* species cluster from south-eastern Australia, mainly Victoria, which leads one to speculate on the origin and ancestry of *Grevillea cravenii*. Makinson (Fl. Australia 2000: 89) states that the species in the *G. aquifolium* cluster 'differ in having more clearly dissimilar indumenta on the upper and lower leaf surfaces, glabrous styles and in most taxa lack glandular hairs'.

G. cravenii has a mixed glandular and non-glandular indumentum of purplish hairs on the outer perianth and on the style. By implication, we assume that both leaf surfaces are similar and have a tomentose indumentum of wavy, ascending hairs.



IN THE GARDEN



Grevilleas in Scone

by Miss M A Rossington

I received my study group newsletter No 60 today and loved the articles about trips to WA, although they did make me turn GREEN!

I am a confirmed Grevillea addict and am also turning into a Verticordia addict as well. Unfortunately I have just had to give up my job so money at the moment is virtually non-existent.

At the moment I have 76 Grevilleas - 77 when I can afford to pay for one I have reserved at Muswellbrook State Forest nursery. Just over half (40) are planted in raised beds, the others in large plastic pots.

Grevillea trifida, *G. intricata* and *G. pimelioides* are planted in a narrow bed beside my garden shed, facing south. When I built the shed, I concreted a border around the bed on both south and west sides, dug it out to about a foot deep, dug and watered gypsum into the black clayish base, then used a layer of fill (about 8 inches deep) taken from a cousin's backyard - a pile of at least 30 year old rotted down sawdust, I covered this with bought in soil - 2 parts river sand to 1 part loam and built it up at least a further 8 inches towards the back.

I don't know what was in that sawdust but all 3 Grevilleas are thriving! *G. intricata* and *G. pimelioides* are approaching 4 feet tall in less than 18 months. Unfortunately neither *G. miquelliana* nor *G. fililoba* liked it as I lost both, *G. miquelliana* first, replaced with *G. fililoba* which also died last winter. It wasn't a very good plant to start with. I have recently replaced both. *G. miquelliana* seems to be happy in its container while a much larger and healthier *G. fililoba* also seems happy in my second sand/loam built up Grevillea patch. I have *G. "Misty Pink"* and *"Bonnie Prince Charlie"* planted near the shed - both of them seem happy.

I have had two problems which I hope I have been successful in rectifying.

1. *G. longifolia* was planted in my front (western aspect) Grevillea patch with a number of others. All the others were healthy but *G. longifolia*'s leaves were turning brown on the ends and curling up. I have a book (Gwen Elliot's) on pests and

diseases and the only thing likely seemed to be wilt. How one plant in a bed of 14 would be short of water I don't know but I removed all the curled leaves and allowed our leaking hose to drip on its base - it has since put out new straight green leaves.

2. This may help with a query in your newsletter. My *G. banksii* "Ruby Red" is growing in a large (2 feet deep x 2 ½ feet diameter) round plastic pot as are 5 others along side. The leaves have been turning grey-brown on the ends, drying up, curling and falling off. Again I consulted my book and the only thing I could come up with was phosphorus toxicity. I was able to obtain a small bag of slow release nitrogen fertiliser and have applied a small handful, watered in with iron chelate and potassium sulphate with a small amount of trace elements mixed in - in short, anything but phosphorus! This was less than a month ago and the plant is now putting out healthy looking new bright green leaves.

G. chrysophaea is now showing similar symptoms so I am treating it the same way. Phosphorus toxicity in the ground would be much harder to deal with but it is something trhawkins@iprimus.com.au might like to try. My philosophy was, if you have too much phosphorus why not throw in more of everything else to balance it out! Seems to be working for me!

I potted out 12 cutting plantlets recently - 3 each of *G. trifida*, *G. biformata* and *G. tridentifera*, *G. jephcottii* and *G. chrysophaea* - as the nitrogen trick seems to be working on a test *G. biformata* I potted out about a month back (I also had a control). I'm trying it out on them too.

Most of my plants have come from 3 sources - Kuranga Nursery in Melbourne, Muswellbrook State Forest nursery and Mt Annan plant sale in April last year.

I seem to have a number of females - Bronwen, Sophae, Evelyn, Georgiana, Miquelliana, Rosemary not to mention the Strawberry Blonde and the prostitute Riana the hooker! I only have two blokes - Jeffrey and Prince Charlie! Now I'm getting a flamin' nudist (*G. nudiflora*)! Makes for very interesting gardening. I'm having fun - there are a lot worse addictions to have! To all my fellow addicts - let's keep it Australian - Grevilleas forever!!

NET CHAT ON FROST PROBLEMS

Here in coastal California the grevilleas are starting to bloom. 'Moonlight' has produced a half dozen big blooms the past few days. Very happy in rotten soil and little attention. I discovered in the horrid freeze we had here in 1990 (temp went down to 14F for four days) that the ones that were in the shade survived with no damage. But those that got a few hours of sun in the afternoon were severely shaken - the sudden temp change was a real shock. The few I did lose had only been planted for a month or so.

Bill Grant

.....I discovered in the horrid freeze we had here in 1990 (temp went down to 14F for four days).....

Maybe it was the temperature differential.

Maybe some of these may help: - extra potassium (for cell walls in frosts), north, sorry, south-facing wall, lots of mulch, overhead growth/shelter?

Cas Liber

on 1/10/01 4:29 PM, John & Ruth Sparrow:

We get quite a few frosts up here in Queensland and we successfully use an antitranspirant called Envy (there are other brands) to stop frost damage. It effectively provides a plastic covering on the leaves which protects them from all extremes of weather and you have to reapply it when there is new growth. We routinely use it here in the winter to protect many plants including banksii prostrates which we could not get to survive the weather.

We probably Envy all tall tropical grevilleas for 2 winter seasons before they are tall enough to survive.

I know you are colder than here, but our record minimum was -9°C, so that's a pretty severe frost.

Apparently you can make your own Envy using wood glue and water. I'm not sure of the ratios.

Peter Olde

IN THE GARDEN (continued)

Grevilleas in Wagga

Matt Hurst

The climate has temperature extremes of -6°C in winter to 45°C in summer. Rain fall average is approx 560 mls per year, most rain falling from April to October. My soil is mostly a red rocky clay with poor drainage, even after applications of gypsum and organic matter. Some small beds with a very sandy loam have been incorporated into the garden.

All species are established properly then have to rely on natural rainfall. I shall deal with local species first.

G. wilkinsonii now 5 years old is 1.5ms x 1.5ms. An outstanding plant despite the possum smell of the flowers. Seed set is considerable. Seedlings germinate in the garden late winter. Cuttings strike fairly well from firm new growth.

G. floribunda (The Rock) 1 m high at five years. Massed flowering for many months. Local forms vary from small compact shrubs with many dark flowers to tall and sparse with reduced flowering. Some forms at Lockhart have quite large flowers. Cuttings strike at a fair rate.

G. jephcottii is a very nice foliage plant. Flowers are massed but blend with the foliage. I have seen a terminal flowering form in cultivation. Easy to propagate from cuttings.

G. iaspicula is not a very attractive plant. I find it too floppy. Cuttings strike okay in autumn.

G. lanigera (Grenfell form) a low suckering form that seems short lived in the garden. Reasonably attractive. Cuttings strike quite well from wild plants and even better in cultivation. This form spreads for hundreds of square meters at Livingstone Nat Park near Wagga. A hybrid with probable

Feral *G. rosmarinifolia* is quite attractive. Red and yellow flowered forms grow together at Kapooka army base near Wagga.

G. polybractea is a nice looking plant. A full sun situation would suit it better than part shade. Flowers stand out quite well. A hybrid from Livingstone Nat park has some potential.

G. wiradjuri seems to tolerate a range of positions but some afternoon shade is beneficial. Cutting strike well in spring from wild plants. Seed will germinate after thunderstorms if left on their own in a punnet.

G. alpina (small flowered form) forms from near Tarcutta are quite attractive with massed bright red flowers but short lived in the garden. This is not too much of a problem as cuttings strike quite well in late spring and autumn. I suspect that harsher conditions would extend its lifespan.

G. arenaria is a nice plant. Tough and easy to propagate. Has potential for cut foliage. Only drawback is its dull (to humans) flowers

G. petrophiloides is a must for any garden. Never tip prune as I did last year and delay flowering by a full year. Neil Marriott's plants are the ones every lover of the genus should aspire to.

G. georgeana attracted interest from open garden visitors despite the foliage. It does need pruning regularly. Appears to have *G. "Bronze Rambler"* as a rootstock.

Other species and cultivars that have performed quite well in the garden include *G. sericea*, *G. vestita* ssp *vestita*, *G. humifusa*, *G. preissii* ssp ?, *G. "Sid Cadwell"*, *G. "Poorinda Royal Mantle"*, *G. "Dargan Hill"*, *G. lavandulacea*, *G. "Winpara Gem"*, *G. baueri* and *G. "Forest Rambler"*.

Several species that were given to me by Max McDowall or bought at the Fred Rogers seminar last year are still under review. I hope that members find this information of some interest.

Phosacid an internet discussion thread

kbranksome@aol.com wrote:

Phosacid does not sound like something I would like to spray on my proteaceae. What is it?

on 16/10/01 1:57 PM, *Dan Kadrkearnage@yahoo.com* wrote:

It's sold by Yates as anti rot, supposed to be safe and effective against Phytophthora root rot amongst other things. My experience has been mixed. Does anyone else have an opinion on the stuff?

There are two forms of phosphorus acid, one that is known as phosphoric acid (P^{++} , I think) and phosphorous or phosphonic acid (P^{+++}). As the name suggests, they both contain phosphorous.

The phosphorous acid is widely used as an antiPhytophthora (the bugs) agent, including for macadamia and avocado. I have used here but I never found it to be successful. It is only fungi-static, that is it suppresses the bugs, not kill them, and usually the bugs are everywhere if you have them.

There are a number of brands, one of which is Fosject which is the one we used. By the way, it seems to be good as a kill-rust (Most kill-rusts have phosphoric acid in them)

John Sparrow

There was an article on Phosacid in the Grevillea Study Group newsletter a few issues back. It is used by Macadamia growers to prevent damage by Phytophthora. Apparently it works by inhibiting new root growth, thereby restricting the potential entry points of the fungus into the root system.

Peter Olde

There are other brands also. Phos-jet, and Phossic. Basically all phosphonic acid.

I've used it on natural vegetation with good results, and also on avocados, good too, but not had to so far in the garden. I'd always poured it around with a watering can, or in the case of grass trees, injected it, but I was told recently by a friend who has a commercial avo grove that he sprays foliage.

Margaret Moir

HORTICULTURE

Manganese Toxicity

RICHARD TOMKIN "CHANGERS GREEN NURSERY"

Forgive me if this topic has already been aired but having put up with grevilleas, grafted and cutting grown, for the past 15 years that have ALL suffered from dead or dying old leaves, what LOOKS like iron deficiency, branches just dropping dead, distorted new leaves (if any) and VERY poor flowering, I thought that maybe some of you may also have similar problems and would like a probable fix.

We have all been told to mulch, avoid phosphorous, and to feed a little at a time—yes? but nobody explained exactly what ACID soil is. To most people it implies that as ‘natives love acid soils’ surely the more acid the soil is the better! Our soil here is around 4.3 and all our grevilleas grew very well for a few years until we mulched again for the umpteenth time and slowly the whole garden containing 230 grevilleas) went “off”. All of the aforementioned symptoms developed over the next year or so with a number of slow deaths.

After many attempts to FIX the problem (it looks like iron or magnesium deficiency) we took a huge bag of leaves for analysis to be told that Manganese was the culprit. At a PH of 6 or less

manganese becomes more available and even if you have not added any knowingly, it is quite possible that your MULCH has.

Most (all?) wood-based mulch has a high manganese content and the worst, by far, is PINE BARK! Freshly mashed-up so-called Bush or Tree mulch is not much better either.

Compounding the problem is the tendency for all mulches to acidify the soil as they break down which, in turn, makes the manganese more available. So what we thought was good garden practice was killing our plants.

THE CURE.

Shift your pH up to 6 or 6.5. Use Dolomite not Lime. Add loads of GYPSUM. The calcium will help to suppress the manganese. Water it all in and wait for a few months. We do not advise using ANY N.P.K. Fertilisers during this time; there is probably quite a bit still in the soil but is not available due to the low PH. You don’t have to have a pH as low as ours either, 5.5, with a heavy wood mulch, is quite enough (to cause problems).

After 2 years of Dolomite spreading I think we’ve got it beaten.

Cutflower grevilleas — lets make a brand

Kylie Treble

Currently cut flower Grevillea growers are spread across Australia, producing and selling product of varying quality.

Inconsistent quality (particularly shelf life) is likely to harm the international and domestic reputation of our product; so, I have an idea.

I believe, as growers of cutflower grevilleas, we have an opportunity to achieve a united domestic and international perspective to our product.

Through adoption of product descriptors and the creation of a common brand, we (although geographically distant), would be able to showcase our product under one brand.

The advantages of product branding include:

- International and domestic recognition of a uniform product with reliable quality.
- Distinguishing the product from other grevillea products (eg. Israel’s Spiderman grevillea).

Only by working together will we be able to provide the volume required to support the product on an international scene.

How would the system work?

Growers involved would agree to abide by a set of product descriptors specifically attached to the use of the brand.

Registered growers would purchase stem tape (indicating the brand) to attach to the grevillea product. (Stem tape allows

exporters to re-package product with their brand without removing our brand).

Exporters and wholesalers would be requested to do spontaneous spot checks (complete a tick form) on products to ensure product descriptors are abided by. Non compliance would mean the grower would not be able to use the brand when selling grevillea product.

What are the costs?

- A brand and product descriptors need to be developed.
- Stem tape would need to be produced and purchased by growers.
- Exporters/wholesalers may require a fee for spot checking product.

Do you want to be involved?

This project is in the discussion phase. The processes suggested here need to be refined. I am willing to drive the project. I believe we should work together to increase our product’s image and reputation (and thus our sales).

The procedure we adopt may set a precedent for other cut flower products.

I look forward to hearing from you and discussing this idea in further detail.

Please contact Kylie Treble 03 55943 487, k.treble@landfood.unimelb.edu.au

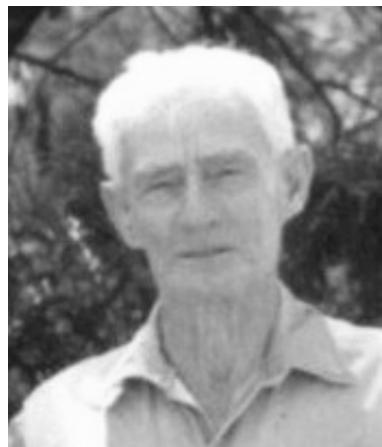
VALE

David Morrice Gordon A.M. (9 July 1899 - 28 July 2001)

a personal memory Peter Olde

My wife, four children and I called in on Dave Gordon one morning in the early spring of 1987 at his Myall Park garden, shortly after the death of his wife, Dorothy, whose book of botanical illustrations was in the process of publication.

Perhaps to take his mind from grieving Dave had also begun to resurrect to its former glory his beloved garden that had fallen into neglect during a long period of debilitating illness with arthritis.



His health had been recently and somewhat miraculously restored. He had begun to replant all his grevilleas and acacias and eucalypts and he was keen to show us round.

He took off at the fastest walk I have ever seen in an almost ninety year old man -so fast that we had trouble keeping up with him. Away he went, first around the house gardens. Speaking quite loudly, he began - this is *Grevillea oldei* and this is *Grevillea johnsonii* from Brown Mountain and these *Grevillea vestita* hybrids are a bit of a nuisance.

Now come and look at the nursery. This is Reg. Hi Reg. Now come and look at the arboretum. We'd better drive. Jump in. Look at this beautiful *Euc. tesselata*.

Do you always drive this fast Dave? Get out here. What's that one? That's *Grevillea brachystachya*, Dave - but where is G. "Robyn Gordon"? ...That's over here. Here it is. It's still the original one you know, over 25 years old now. That's the parent. Now what's this? Come over here. And so it went for hours with plenty of what's that, say that again, and eh? Dave was a touch deaf.

Over lunch Dave talked about many things including his late wife and her untimely death. She had gone down by car to the road to get the mail but never made it. They found her in the car up against a tree 30 metres off the road. Was it a car accident or heart attack?

Dave was determined to honour her memory in the book of illustrations he was preparing. He then outlined a thirty year plan for Myall Park and I laughed. He had just turned 88 and had just received the Order of Australia for services to plant conservation. I'm not finished yet he said. Come down here to the lake and see my pink waterlilies (*Nymphaea gigantea* var. *neorosea*) that we have saved from extinction.



Dave was a wonderful conservationist. From the gift of a single tuber, he had reproduced over 1000 plants of one of the state's rarest plants. He donated 877 hectares of his own land to the Queensland Government that eventually became Eringibba National Park.

After lunch he took me upstairs to his herbarium which I pored over for hours. The boxes covered an entire wall and many of the cupboards were made of silky oak, a very distinctive furniture timber.

During his years as a woolgrower, Dave had employed two very capable men as propagators and seed collectors, especially in Western Australia.

The first of these was Len Miller and the second Alf Gray, who had sent specimens back with the seeds. It was an Alf Gray specimen that was used in 1964 by Charles Gardner in the naming of *G. gordoniiana*. This valuable herbarium resource will one day hopefully be available for general research science.

I remember Dave's overwhelming enthusiasm for plants and life, his hospitality, his erudition and his systematic methods. I was already greatly in awe of him even before we met. He came with such high recommendation from the likes of Alby Lindner and the Althofer brothers especially the late Peter Althofer who continues to inspire and guide me long after he has gone.

But it was the tragic story of his first-born darling daughter Robyn (1953-1969) that had melted my heart. She had become anaemic and weaker over a period of a year, wasting away as if she had a cancer. But cancer it was not, he said. We took her to every specialist around but the disease that took her was never identified, he said. *Grevillea* "Robyn Gordon" was named in her memory - the plant that changed the face of Australian gardens and made people notice Australian plants.

He recounted the sad story to me without tears but as he spoke he slumped in his chair and stared at the fire and remained silent for a long time. Who needs television when you have a fire, he exclaimed some time later when he began to brighten again. With that he jumped up and went to get some bread. This he proceeded to toast over the fire for the children.

We retired for the evening at his insistence in a workers cabin that stood among others near the house. We used to have a small town of people here once, he said. It worked very well for the men but it was the wives and their fights that made it all come unstuck.

Vale, Dave, will we ever see your kind again? I strongly recommend the book One Man's Dream by Betty McKenzie for anyone interested further in the life of Dave Gordon.

VALE

(continued)

A memory of Dave Gordon

In 1952, Dave sent down a variety of native flowers wrapped in wet newspaper to my Dad, Alan May, who was given the responsibility of disguising a door at the Toowoomba Chelsea Flower Show. He made up a board with holes behind which he attached lots of test tubes. These were filled with water and the flowers inserted making a lovely display with botanical names attached. This was a first for what was till then a purely "exotic" affair. As you can imagine it attracted a lot of interest.

Dad later went on a collecting trip to WA with Alf and Freda Gray in April 59. Some of the plants he brought back were planted in Dave's garden and some in ours in Toowoomba.

As I was only a couple of months older than Robyn, we became friends. I have a lovely photo of the two of us as babies in the one bassinette, Robyn trying to take a chunk out of my shoulder! We compared scabby knees on our unfortunately rare visits and delighted in teasing her younger sister Sandra!

My memories from those days were of Dave looking almost exactly the same as he did in his later years. Dorothy singing as she worked in the kitchen and her lovely gurgly laugh. Robyn looking as pretty as the girl on a box of chocolates but with a wicked sense of fun, my disappointment whenever our visits had to be cancelled because the dam was up and the roads were cut (obviously they were always delighted because of the rain!), the upstairs room where the herbarium specimens were kept with the sun streaming in through the windows and the lovely view down to the dam (which had been cleared by a young Joh Bjelke Petersen!), the downstairs area, dark and cool because of the upstairs room and always full of the smell of *Eucalyptus torquata* - which must be one of the most beautiful perfumes around.

Dave was always so patient and happy to show people around his garden no matter how ignorant they were of plants. It is fantastic that his garden is now in the capable hands of the Friends of Myall Park Botanic Garden. They have open days, welcome visitors and have a limited amount of accommodation on site. Enquiries can be made to Jen McCormack on 07 4665 6814. Website: www.users.bigpond.com/myall_park_b_garden.

The award to Dave of his A.M was thoroughly deserved. In a way, his contribution to Australia does not just lie in his work with native plants and the well known *Grevilleas* "Robyn Gordon" and "Sandra Gordon". Dorothy's paintings and Dave's garden at Myall Park have resulted in many local people developing new skills and given them all sorts of experiences they would not have had otherwise. It has created jobs and a tourist industry in an area where opportunities are limited. Fortunately, Councils and the Government have recognised this and supported the Botanic Garden to a degree, though probably they could do more.

The prevalence of *G. "Robyn Gordon"* all round Australia should have made Dave a rich man. Perhaps if the sale of it had been tied up with royalties it may not have been so freely available. This in turn could have delayed the acceptance of "natives" as horticultural alternatives. I hope Dave realised that he has contributed significantly to the interest in and appreciation of our indigenous flora.

He was a man who thought of the future. Despite (or perhaps because of) the premature deaths of close members of his family, he single mindedly pursued his dream, leaving a wonderful legacy for all Australians.

- Alison Bailey (*Grevillea newsletter typesetter*)

Vale

William (Bill) Keech
20 Oct 1911 - 27 Oct 2001

Bill Keech who lived at Erowal Bay on the south coast of New South Wales has died after a long life of just over 90 years.

He was an enthusiastic lover of grevilleas and tirelessly promoted them in his later years.

In his youth he worked for Hardy's Wines as a signwriter. In the 1960's he was head gardener at Roselands but his pride and joy was the garden he created at Calvary Hospital at Carlton. He and wife Sylvia retired to the South Coast where he became a member of Nowra Group, Australian Plants Society. He was also a member of the Grevillea Study Group from its earliest founding days.

Bill worked tirelessly at the Lady Denman complex in the Nowra Group's garden during the middle 80's and 90's where he continued to promote grevilleas and their use.

Vale Hazel Blackney.

Sad to report the leader of the Hakea Study Group, Hazel Blackney, died on the afternoon of January 15 2002 of lung cancer. Hazel was been leader of the Study Group since its inception. A full obituary will be written in the quarterly Victorian Journal of the Australian Plant Society.

Max McDowall. maxamcd@melbpc.org.au

Grevillea Email Group

This email group was begun by John and Ruth Sparrow from Queensland. Free membership.

To subscribe go to groups.yahoo.com and register, using the cyber-form provided. You must provide a user name and password as well as your email address to enable continuing access to the site which houses all emails and discussions to date.

You will receive a confirming email back and then you are able to access the site wherein you can select the groups you would like to subscribe. In this case search for "grevilleas" and then subscribe.

ON-LINE CONTACT

1. President's: email address: petero@australians.com
2. The email group grevilleas@yahoogroups.com
3. The URL of the Grevillea Study group website <http://grevilleastudygroup.homestead.com/first.html>
4. The URL of the Illawarra Grevillea Park website <http://www.speedlink.com.au/users/ziebell/grevillea/>
5. The URL of the Grevillea Page of the Australian Plants Society where you can read the .pdf(Acrobat Reader) copy of the newsletter and other grevillea information.
<http://farrer.riv.csu.edu.au/ASGAP/greville.html>

BITS 'n PIECES

Jackie Miles turns up trumps

A confirmed sighting of *G. johnsonii* growing on the Brogo River near Bega has been received. This species is otherwise known only from a restricted area of the Central Western Slopes and Tablelands. Some locations given by McGillivray are Cox's Gap, Kerrabee; Murrumbidgee, Goulburn River; Mount Gundangaroo; Mount Dangar; Gungai i.e. Wollemi NP and Goulburn River area, a geographic disjunction of c. 400 km.

The plants were collected from a population of c. 100 plants. The discovery was made by Brogo-based consultant, Jackie Miles, who recognised the plant growing near a sandstone outcrop beside the river. Several expeditions were mounted to the Brogo river in the 1970s including one by nurseryman Bill Molyneux and another by L.A.S. Johnson and Don McGillivray both of which failed to locate the plant. There is an herbarium record cited by McGillivray (1993:139). The notes attached to the specimen read "cult. from seed collected from a plant from Brogo R. Fl red and creamish. N. Parbery Oct 1950".

A field trip to the area was also mounted by the Grevillea Study Group in the 1990's but could not re-locate it. The search was mounted under the affirmation by Peter Althofer that his brother George Althofer claimed to have collected this species on Brown Mountain near Bega. The late Dave Gordon had a plant that he called the Brown Mountain form, sent to him by George. George's directions were vague and relied on memory from over 20 years previous. He claimed to have found it below a lookout in a creek bed or near a creek bed at the base of some rocks. Although George claimed to have sent a specimen to the New South Wales Herbarium in Sydney, there was no specimen there by the time of Don McGillivray's tenure from 1964. Thus distribution of this species at this location was regarded as doubtful.

The discovery of *G. johnsonii* on the Brogo river follows the discovery some months previous by the same consultant of a new population of *Grevillea acanthifolia* subsp. *paludosa* growing on Brown Mountain near Bega, NSW. The only other known location till now was the Type locality at Mount Wog Wog trig in Nalbaugh National Park from where only 12 plants were recorded. The new location supports a reasonable-sized population and the find is a welcome discovery in the quest for a sustainable future for this taxon.

G. caleyi & macleayana near Helensburgh.

For many years there have been anecdotal rumours, usually second-hand, of a population of *Grevillea caleyi* growing in the Appin-Helensburgh area.

Beth Michie (Kentlyn Native Nursery) insisted 20 years ago that the species occurred there but her information was second-hand and she was unable to provide definite locality information.

Herbarium records at NSW have a collection of *G. caleyi* (buds and flowers) by D.O. Cross (NSW 19901) collected in January 1933 that gives the location of this collection as between Appin and Bulli Pass.

McGillivray (1993:55) dismisses this collection as incorrectly labelled because the same collector gave this locality for at least two other dicotyledonous plants not otherwise recorded from the area. *Grevillea caleyi* is known with certainty from an area bounded by Terrey Hills, Mona Vale and Middle Harbour in the subcoastal residential belt north of Sydney Harbour.

George Caley first collected it in 1805 from a place called Seasight Hill, an old locality in the Mona Vale area.

Recent reports are to hand that the species does occur in a small scattered population in bushland west of Helensburgh. The informant has been asked to relocate the species and provide a specimen, following which the Study Group will mount an expedition. Once it has been positively located, we will publish more on this. However recent bushfires will cause some delay.

Our informant also tells us that *G. macleayana* also grows in the same locality and both species occur together with *G. longifolia*. This location would be a more northerly distribution than has ever been recorded for *G. macleayana* which is only known from south of Nowra.

Grevillea rosmarinifolia

Apropos *G. rosmarinifolia* Type Form. I've been sitting on a couple of other populations of this for a while now, as there are some rather delicate preliminary negotiations going on with land managers and neighbours. I've been asked to keep the exact locations dark for the time being, pending outcomes on reserve status — I am trying to get two departments to coordinate but the personnel keep changing and have had to go back to scratch each time.

The populations are yet to be fully surveyed, but they have upwards of 200 plants each. They are not as close to Glenroy as your find. One is still on the Cox catchment (reported to me the week after your find, although the local person who found it had known of it for some time). The other is just over the Divide to the west (this one found by me some time ago).

Will tell you more on these when able. In the meantime, if you hear of more populations, could you please check with me so that we don't work at cross purposes? That would be great.

Bob Makinson Cpc@rbgsyd.nsw.gov.au

New Petrophile and Isopogon Study Group.

A new group led by David Lightfoot has begun the study of one of the most beautiful in the Proteaceae.

Petrophile and *Isopogon* are closely related to *Grevillea* and some might like to make a contribution to this new group. David lives in Victoria but he hails from New South Wales, son of the great Paddy Lightfoot. For all you Victorians wanting to claim him, we regard him as a New South Welshman living away from home. Contact details

David Lightfoot 36 Arundel Cres Surrey Hills Vic 3127.
petrophiles @mac.com

Rediscovery of *Grevillea cravenii* reported in Australian Geographic

An article by Sue Forrester details the excitement of a find in the January-March 2002 issue (Pp 27-28) (see also article on the new species in this newsletter) Most of the plants found were not in flower. However a single flowering specimen among over 600 plants enabled the identification and description to be written up. The area was accessed by helicopter and had been recently burnt in a wildfire started possibly by lightning. The species was resprouting from lignotuber.

New location for *Grevillea wilkinsonii*.

Matt Hurst reported reading in a local Wagga Wagga newspaper about the discovery of a new location for *Grevillea wilkinsonii*. Matt reports that he has located the owner of the property at Gundagai and will let us know when we can make a trip to see the new plants later this year.

CHAT FROM THE NET

Grevillea "Scarlet King"

Has anyone got any idea what is the botanical name for Grevillea "Scarlet King"? I think it is a selected form of *G. tetragonoloba* but was told it was *G. rigida* (doesn't look like what I know as *rigida*). Very nice looking plant though. Any input?

Mark Ross

I have a thriving *G. "Scarlet King"* in my small suburban backyard. Contacted the company who produced this plant (based in Wallan, Vic, I recall) and was told it is *G. tetragonoloba* grafted onto *G. robusta*. A wonderful grevillea for any east coast backyard!

Paul Attard

No idea, but I concur, it's a very nice plant. So nice I bought one.

David Lightfoot

This is a new species for which Neil Marriott & I are currently writing up a description. It is currently known as the Bremer Bay form of *Grevillea tetragonoloba* or Race 'b' sensu McGillivray.

The new species name will relate to the white indumentum on branchlets and elsewhere. Neil Marriott and I collected it in 1999. Magnificent plant. It grows overlooking the ocean at Point Hood, a very remote area of south-west Western Australia, on granite.

It also occurs on Doubtful Island apparently. It was introduced to cultivation by John Cullen some years ago when he went fishing there and he sent material to Phillip Vaughan who propagated it.

A friend of Phillip's has taken the plant and promoted it under the name *Grevillea "Scarlet King"*. Olde & Marriott treated it as a form of *G. tetragonoloba* but we were unfamiliar with the plant. At that stage we had never seen it and the specimen base is very small and inconclusive.

Peter Olde

General Chat

Our names are James and Sarah Kitchin and we live at Sandford, which is 32 KM from Hobart in Tasmania on the SE coast.

We have an Australian native bush garden, approximate size 1/4 of an acre. Our favourite plants are grevilleas of which we have 134 of differing sizes.

Most of our plants have been purchased from varying nursery gardens around the state. As well we have propagated several from cuttings and seeds, including some West Australian species.

We started our garden in 1995 after I retired, the motivation coming from visiting several native gardens in the ABC open garden scheme in Tasmania.

As well as joining the yahoo group, we have now also recently joined the state Society for Growing Australian Plants.

We look forward to participating in the group discussions of grevilleas@yahoo in the future.

James and Sarah

I'm interested in the susceptibility of grevilleas to root rot. I am in the process of putting my experience on paper. Could others do the same some time.

John Sparrow

Had a recent trip to the Central Coast & Southern Highlands of NSW visiting two of our children. Whilst on the Central Coast we visited Brisbane Waters National Park. This is one of a number of National Parks surrounding Sydney whose soil is derived

from Hawkesbury Sandstone a substance with minimum nutrients but capable of supporting a bewildering and exciting range of native plants. One track was lined with *G. sericea*, *G. speciosa* and probably *G. buxifolia* subsp *buxifolia*.

On the Southern Highlands we searched unsuccessfully for a rare Banksia. We were rewarded by seeing *G. sphacelata* & what we think is *G. arenaria*.

Has anyone successfully propagated any of the *G. buxifolia* subspecies? The Grevillea Book mentions that *G. sphacelata* (a close relative) strikes readily from cuttings.

Warren & Gloria Sheather.

My friend Peter from Rozelle Landcare is propagating *G. buxifolia* from seed. He has noted that it is one of the first plants to disappear when bushland is disturbed and thinks it may be extremely phosphorus sensitive. Our former president from Inner Sydney had real trouble growing it (I haven't tried as yet)

Cas Liber



G. buxifolia
subsp. *buxifolia*

The Grevillea Book II
Peter Olde &
Neil Marriott

Close-up Merv Hodge

I recently purchased a *G. rosmarinifolia* Bathurst. As I'm setting up a hobby nursery near Bathurst I'd love to know its origin. The nursery lady that sold it to me said that, to the best of her knowledge, it originated in the Bathurst area, died out, but had meanwhile been taken to England and propagated.

It has just recently been brought back from England and is now on the market here. Any clues about this?

Lorna Noonan hinoo@netwit.net.au

You would need to key that in. If you have Peter Olde's and Neil Marriott's Grevillea books they describe the different forms including the "Type" form. This plant could possibly be the "Type". This was the original form of *G. rosmarinifolia* collected and named. It is a longshot but the "Type" was found and collected near the Coxs River outside of Lithgow. This plant was propagated to the best of my knowledge in England.

Bruce Wallace bruwal@ihug.com.au

Without seeing the plant my best guess is that it will be the Type form originally collected by Cunningham or more likely later on by Charles Fraser by on the Cox's river and sent to Edinburgh where it was rediscovered growing beside a garden wall by Don McGillivray and sent back to Australia for re-propagation in the late 60's. The last Grevillea field trip relocated *G. rosmarinifolia* growing wild on the banks of the Coxs river. One of our recent newsletters (Number 55 - backcopies from Christine Guthrie), tells the whole story. More information has also come to light from Bob Makinson but he has yet to give details of the location.

Best of luck with the hobby nursery. Send details when you are open for business.

Peter Olde petero@australians.com

THE BACK PAGE

SEED BANK

Thank you to Werner Kutsche from SA for his kind donation of seed of *Grevillea leucoptera*. He says there is not much chance of hybridisation as there is only this species for 200 metres. This seed is now available from the seed bank. Free seed - *G. banksii* tree, *banksii* grey leaf, *barklyana*, *beadleana*, *caleyi*

Please note new phone number for Judy Smith (Seed Bank) - 9579 1136.

Please include a stamped, self addressed envelope.

Grevillea Seed \$1.50

<i>candelabroides</i>	<i>juncifolia</i>	<i>pterosperma</i> SA
<i>copper rocket</i>	<i>leucopterus</i>	<i>pterosperma</i> WA
<i>crithmifolia</i>	<i>linearifolia</i> white	<i>pulchella</i>
<i>decora</i>	<i>longifolia</i>	<i>pyramidalis</i>
<i>didymobotrya</i>	<i>longistyla</i>	<i>quercifolia</i>
<i>dryandri</i>	<i>monticola</i>	<i>refracta</i>
<i>endlicheriana</i>	<i>paniculata</i>	<i>rivularis</i>
<i>eriobotrya</i>	<i>petrophiloides</i>	<i>robusta</i>
<i>glaucha</i>	<i>petrophiloides</i>	<i>sid reynolds</i>
<i>goodii</i> ssp <i>goodii</i>	<i>phanerophlebia</i>	<i>stenobotrya</i>
<i>huegelii</i>	<i>pilulifera</i>	<i>synaphaea</i>
<i>insignis</i>	<i>plurijuga</i> upright	<i>teretifolia</i>
<i>intricata</i>	<i>polybotrya</i>	<i>tetragonoloba</i>
<i>johnsonii</i>	<i>pteridifolia</i>	<i>thelemeniana</i>

Grevillea Park Bulli OPEN DAYS 2002

April 27th, 28th, May 4th, 5th

July 20th, 21st, 27th, 28th

September 21st, 22nd, 28th, 29th

Each year it is the last full weekend in April, first weekend of May, last two full weekends in July, last two full weekends in September.

<http://www.speedlink.com.au/users/ziebell/grevillea/>

OFFICE BEARERS

Leader: Peter Olde, 138 Fowler Road, Illawong 2234. (02) 9543 2242; petero@australians.com

Treasurer and Newsletter Editor: Christine Guthrie, PO Box 275, Penshurst 2222. Phone/fax (02) 9579 4093

Curator of Living Collection: Neil Marriott, PO Box 107, Stawell Vic 3380

Curator of Grevillea Park Bulli: Ray Brown, 29 Gwythir Avenue, Bulli 2516. (02) 4284 9216

Seed Bank: Judy Smith, 15 Cromdale Street, Mortdale 2223 (02) 9579 1136

FINANCIAL REPORT

Income	FEBRUARY 2002	Expenditure
Subscriptions	\$274.14	Newsletter Publishing
Donations	5.00	Postage
Interest	244.90	Wa trips fuel (P. Olde)
Plant Sales	440.00	Bank Charges
		Subs to ANPC
		Stationery
	<u>\$964.04</u>	<u>2.70</u>
		\$3238.90

\$10,441.89 in Interest Bearing Deposit till 14 July 2002

Balance in Current Account as at 25/02/01 \$9,066.21

* *

If a cross appears in the box, your subscription of \$5.00 is due.

If a cross appears in the box, your subscription of \$5.00 is due.
Please send to the Treasurer, Christine Guthrie, PO Box 275, Penshurst 2222.

Please make all cheques payable to the Grevillea Study Group.

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