

Association of Societies for Growing Australian Plants



Ref No. ISSN 0725-8755

Newsletter No. 73 – February 2006

Newsletter No. 73

GSG Victoria Chapter

Leader: Neil Marriott
Ph: (03) 5356 2404, Mob: 0408 177 989
Email: neilm@netconnect.com.au

Convener: Max McDowall
Ph: (03) 9850 3411, Mob: 0414 319 048
Email: maxamcd@melbpc.org.au

GSG VIC Programme 2006

Because of the bushfires around Victoria, some activities which we were planning have had to be deferred.

Sunday, 30 April or 21 May

Garden visits and/or workshop TBA.

Sunday, 13 August

Garden visits to be advised.
Because of the Fred Rogers Seminar Acacia 2006 to be held in Melbourne from 26-28 August and subsequent Bus Tour, no weekend excursions are planned around this time in 2006.

Melbourne Cup weekend

Saturday, 4 November – Tuesday, 7 November

Grevillea Study Group Workshop and Grampians Field Trip based at Panrock Ridge, home of Neil and Wendy Marriott near Stawell. Survey the fire damage and regeneration of the Grevillea Garden and Grampians bushland (especially of grevilleas and other proteaceae). Werner Kutsche (Adelaide) has expressed interest in a workshop on the use of the Grevillea Key(s).

Inside this issue:

- *Grevillea williamsonii* – endangered species or merely a mutant?
- *Grevillea bipinnatifida* ssp *pagna* – a new subspecies for south-west Western Australia
- Bushfires – loss of the GSG living collection
- Grevillea news

and more....

GSG NSW Programme 2005

*For more details contact Peter Olde 02 4659 6598
Meet at 9.30am to commence at 10.00am for all meetings unless stated otherwise.*

Sunday, 12 March

VENUE: Illawarra Grevillea Park, Bulli

SUBJECT: Grevillea Standards with Ray Brown.

Ray will address the problems of propagating grevilleas as standards and discuss successful and potentially useful species/cultivars.

Saturday, 22 April – Sunday, 23 April

Autumn Plant Sale

See page 5 for details.

Saturday, 27 May

VENUE: Home of Mr & Mrs Tony Sexton
26 Crana Rd, Camden

PHONE: (07) 3289 3349

SUBJECT: Tony's Secret Tips

The beautiful garden of this modest gentleman is well-known to the members of Macarthur Group. Tony has agreed to show us his lovely collection of plants, a large number of them grevilleas, and how he blends them so well into his landscape and grows them to perfection.

Sunday, 9 July

VENUE: Home of Peter & Margaret Olde
138 Fowler Rd, Illawong and
Home of John & Lorraine Theodoros
Letter Box Lane, Illawong

PHONE: The Oldes 9543 2242,

SUBJECT: Grevilleas on the Sandstone

It is many years since we have been to the Olde's garden at Illawong as a group. We will visit some others also in the area, as well as the Firestation and check out a *Boronia megastigma* several years in cultivation in the garden of a local resident. What can we learn?

GSG S.E. QLD Programme 2006

Please see page 3 for dates and details.

From the Study Group Leader

This is our first newsletter for 2006 which the Victorian Chapter have put together. It is very helpful to me as leader to get this kind of support and I am deeply thankful to Neil Marriott and Max McDowall, the main contributors. Next newsletter will be compiled by the Queensland chapter. Queensland members are requested to send articles before the deadline as published on the back page. It does not take too much to write an article of interest to readers. One suggestion would be to take one of the more recent hybrids or hybrid series that have come on to the market recently, such as the Honeybird Series and write them up. Maybe contact the guy who has developed them and find out the parentage. Describe how they grow and flower colour, reliability, plans for the future, new hybrids, cultivars, marketing, where you can get them etc. How easy is that?

Last month in Newsletter 72 an article entitled *Grevilleas* of Menai was attributed to my authorship. While this was very kind of the editor, I regret that I do not have the writing skills of the true author, Lloyd Hedges. Lloyd has another article which will be published shortly. I am extremely grateful for his contributions and it would be greatly remiss of me not to correct the mistake.

Wild fires have caused the loss of the Living Collection in Victoria. This sad event has been devastating for Neil & Wendy Marriott and has ruined years of collecting and hard work, not to mention the expense. All is not lost. Most if not all of the species and cultivars lost are in other members' gardens and can be put together once more. Stephen Smart in Stawell has a fantastic collection, mostly of the showy species, and other members throughout Victoria, New South Wales and Queensland will be able to get the rest together when the time comes to recreate the collection. Phillip Vaughan has offered to co-ordinate this, and will be requesting donations of plant material when the time comes. Much appreciated, Phillip.

Members are urged to consider giving their time again to our Autumn Plant Sale, which is used to raise funds for research. Most members seem to consider that they have no obligation to help in this matter, being inactive. However, I urge them to think again, even if this is the only activity with which they can be involved. Last year we were very short of volunteers and we were very thankful to the members of the Australian Plant Society for their assistance. I have spent several months preparing, ordering and cataloguing the plants for sale and I think that this will be the best yet. Apart from an unusual range of grafted grevilleas not previously offered for sale, there is a large range of other grafted genera, including many eremophilas, some not yet officially named, banksias, beaufortias, verticordias, hakeas, and other showy genera suitable for home gardens. The large range of ungrafted plants was also appreciated last year as were the tumbler stock. As I go around people's gardens, so many of them tell me that they purchase their unusual plants at our Autumn Plant Sale and I think the sale is an important element in the native plant-growers calendar each year. This year we hope to have plants of the Wollemi Pine available for the first time, though these plants will not be cheap, I expect.

Spring in the garden was a little disappointing this year. In the area where I grow most of my plants, the plants simply did not look healthy. Flowering was very poor and the foliage looked decidedly unhappy on so many plants. A microscopic inspection did not reveal any obvious culprit. However we did notice large numbers of white fly. I decided that some research on this potential pest was worthwhile. In the meantime we sprayed with some miticides and then pruned the plants, following which they have come back strongly. Other growers in the area were similarly afflicted. One neighbour knocked on the door and asked why his *Grevillea* 'Superb' did not flower this year. Have you ever heard of such a thing? White Fly. See my article next issue.

GSG S.E. QLD Programme 2006

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

Sunday, 30 April

VENUE: Home of John & Gwen Marsden, Lot 48 Roxburgh Rd, Wights Mountain, 4520

PHONE: (07) 3289 3349

SUBJECT: Grevillea species on their own roots

Sunday, 25 June

VENUE: Home of Tim & Suzanne Powe, 36 Burnett Street, Sadlier's Crossing, 4305

PHONE: (07) 3812 9878

SUBJECT: Pruning grevilleas

Sunday, 3 September

(Note: change of date due to other commitments in August)

VENUE: Home of Fay & Peter Fox, 2 Delonix Place, Wights Mountain, 4520

PHONE: (07) 3289 1751

SUBJECT: Pruning grevilleas

Sunday, 29 October

VENUE: Home of Denis Cox & Jan Glazebrook, 87 Daintree Dr, Logan Village, 4207

PHONE: (07) 5546 8590

SUBJECT: Grevillea species in S.E. Qld.

Sunday, 26 November

VENUE: Home of Merv. & Olwyn Hodge, 81-89 Loganview Rd, Logan Reserve, 4133

PHONE: (07) 5546 3322

SUBJECT: Growing grevilleas in pots.

Directions to Grevillea Study Group (S.E. QLD) meetings for 2006

John & Gwen Marsden

Lot 48 Roxburgh Rd, Wights Mountain, 4520.
Phone: (07) 3289 3349

Take Mt. Glorious Rd, to Samford Village – go 1.1km, left into Wights Mountain Rd – go 2.5km, turn right into Westbourne Dr, second street on RHS is Roxburgh Rd. (Do not use Days Rd as there is no entry to Roxburgh Rd from there). Lot 48 is last house on Right-hand side at end of road (dead end street).

UBD Map 106 E17

Tim & Suzanne Powe

36 Burnett Street, Sadlier's Crossing, 4305.
Phone: (07) 3812 9878

From Brisbane follow through to Ipswich, following Brisbane Rd right through Ipswich to lights at its junction with Burnett St (which veers to the right at the lights).

Tim's home is on the corner of Burnett & Ferrett Sts. Park in Ferrett St, home is on LHS.

UBD Map 212 R14

Fay & Peter Fox

2 Delonix Place, Wights Mountain, Qld. 4520.
Phone: (07) 3289 1751

Take Mt. Glorious Rd, to Samford Village – go 1.1km, left into Wights Mountain Rd – go 2.5km, turn right into Westbourne Dr, first street on LHS is Delonix PI (a small cul-de-sac),

No. 2 is on the right-hand side. Park in the street.

UBD Map 106 E18

Denis Cox & Jan Glazebrook

87 Daintree Dr. Logan Village, 4207.
Phone: (07) 5546 8590

At northern side of Logan Village, turn over railway crossing in Quinze Creek Rd. Continue straight ahead (becomes Miller Rd) right into Latimer Rd, right into Diamantina Dr, pass the first sign to Daintree Dr follow Diamantina Dr to second sign Daintree Dr.

Jan & Denis are on the corner of Diamantina Drive and the southern end of Daintree Drive.

UBD Map 303 M7

Merv & Olwyn Hodge

81-89 Loganview Rd, Logan Reserve, 4133.
Phone: (07) 5546 3322

Follow Kingston/Beenleigh Rd towards Beenleigh, turn right into Logan Reserve Rd – go approx. 5km. Turn left into Loganview Rd, go 1km.

81-89 is on left-hand side (3 properties before Henderson St).

UBD Map 281 N8

Victorian Members around the state especially new members who would like to receive current advice of forthcoming Study Group activities in Victoria, please send Max McDowall your contact details home and EMAIL address, phone numbers (landline and mobile) and partner's given name, if you have not already done so (see Max's details on page 1). Please keep me advised of changes. Timely registration is essential for weekend or extended field trips and should include description of vehicle make and model (4WD?) and registration number. This enables advance distribution of the list of participants and can facilitate car-pooling, communications and recognition among members, before, during and after the trip. Apologies (from regular participants only) can be helpful to the organisers.

These activities can provide opportunities for distribution of cuttings and plants of grevilleas etc. among participants, so it can be helpful to all to know who is coming and what they might like to share, buy or sell.

Programme for 2006

Because of the bushfires around Victoria, some activities which we were planning have had to be deferred.

Panrock Ridge Grevillea Garden

Neil and Wendy Marriott are most appreciative of offers from APS friends to help restore their property and grevillea garden after the devastation of the New Year's Day fires. Those willing to help can make private arrangements with Neil, or make themselves available on call – **there are no current plans to organise an official GSG Working Bee at Panrock Ridge.** When the weather is cooler and suitable work projects can be planned, limited numbers of helpers could be useful, at any one time. Neil advises that he currently has a large collection of grevillea pot plants in the nursery, so until the viability of the remaining garden plants and the germination of seedlings from the seedbank in the burnt areas have been assessed, offers of donations of plants might better be deferred for the present, until needs are clearer.

Future Activities

From time-to-time, GSG members in the Melbourne area may be invited to come on local District Group visits to gardens with good collections of Grevilleas. We have had several invitations for GSG to visit gardens around Victoria and we hope to incorporate these into our programme over the next two years. For 2007, we are considering another weekend excursion to more gardens and bushland in North Central and North-Eastern Victoria and a Cup weekend 2007 extended Field trip to far SW Victoria and the Mt Gambier region of S.A. starting from Dunkeld. If you would like GSG to visit your garden, other gardens and the bushland in your area, please contact Neil or Max with your proposal.

Research Proposals for Victorian members (any other ideas?)

1. Propagation and cultivation of grafted *Grevillea alpina* forms and of the holly-leaved grevilleas.
2. Study of the forms of *Grevillea lanigera*.

The newsletter can be sent electronically to save paper and postage.

If you'd prefer to receive the newsletter this way please send your current email address and phone number to grevilleanews@optusnet.com.au

Don't forget to also update your details when you send in your subscriptions.

Autumn Plant Sale 2006

Mt Annan Botanic Garden

Mt Annan Drive, Mt Annan.

*The entrance is well signposted off Narellan Rd and the South-western Freeway between Campbelltown and Camden.
Entry Fee is \$4.40 per person.

Saturday 22 April 10am to 4pm

Sunday 23 April 10am to 4pm

Come and meet Don Burke on Sunday 12 noon

**Expert advice garden and horticultural advice
from Merv Hodge, Cas Liber, Neil Marriott, Ray Brown, David Shiells.**

New Release Plants – be early!!

Wollemi Pine

Huge range of Grafted Plants in the following showy genera

Banksia, Beaufortia, Chamelaucium, Correa, Darwinia, Diplolaena, Eremaea, Eremophila, Eucalyptus, Geleznowia, Grevillea, Philotheca, Prostanthera, Verticordia.

Largest Range of Native plants for sale in one place at the one time

Tumblers available from \$5

Catalogue download from April 1

<http://farrer.riv.csu.edu.au/ASGAP/greville.html>

Sponsored by: **The Grevillea Study Group** of the Australian Plants Society
P.O. Box 275 Penhurst N.S.W. 2222 Phone: (02) 4659 6598

All profits raised are used for scientific research or horticultural purposes.

Grevillea williamsonii – endangered species or merely a mutant?

In 'Williamson's *Grevillea* (*Grevillea williamsonii*) Recovery Plan 1999-2004' January 1999 by Elizabeth James, Fiona Coates, Neil Marriott, Graham Parkes and Jill Read it was stated that "*Grevillea williamsonii* is one of the most threatened plant species in Australia. Only one population of fewer than 15 plants is known. It is currently classified as an Endangered species under the Commonwealth Endangered Species Protection Act 1992 and as a threatened taxon under the Victorian Flora and Fauna Guarantee Act 1988 due to the extremely small number of individuals and location at a single site. It is also considered Endangered (2ECi) by Briggs and Leigh (1995). Under current IUCN Red Book threat categories and criteria (1994), Williamson's grevillea is Critically Endangered."

Research work into the species by Elizabeth James from the Melbourne Herbarium has recently determined that "*Grevillea williamsonii* is nothing more than a mutation of *Grevillea aquifolium*". A number of relevant points have come out in the emails between Liz, myself and Peter Olde summarised as follows;

From Elizabeth "The reason that I concluded that *G. williamsonii* was an unusual variant of *G. aquifolium* was a combination of things. I had no thought of it not being a species when I first looked at it so I have been surprised myself. Firstly, I have looked at hundreds of flowers both from the field and plants growing at the RBG and growing in the ground when Philip Vaughan had his nursery at Pomonal. I have never found a flower that produced pollen. That meant that if viable seed was produced (I haven't found any), the pollen must come from other plants in the vicinity and the obvious one is *G. aquifolium*. Secondly, the papillae on the stigma are deformed. Rather than having the slender finger like structure typical of the species in this group, the papillae are bulbous. It is possible that the female side of things still functions if pollen is coming from another source but the papillae are definitely deformed. This means that both the male and female reproductive organs are abnormal. In addition, I have been unable to separate *G. williamsonii* from *G. aquifolium* using genetic techniques although "*Grevillea. ilicifolia*" (Coak and Black

Range) group near each other but are quite distinct from *G. aquifolium* as is *G. renwickiana*. So, I think that there is a recessive mutation in the *G. aquifolium* populations around that area of the Grampians. Occasionally, when two plants containing the mutation cross, the result is the morphology distinctive of *G. williamsonii*. In the Serra Range I have found two plants where most of the leaves are entire or slightly lobed like *G. williamsonii* although the leaves are larger, more similar to *G. williamsonii* plants that have grown in the glasshouse. I haven't published the work as yet, in fact I am screening plants with another genetic technique. Hopefully the work will be submitted in the second half of the year"(2005).

Elizabeth has stated "As far as mutations go, it is possible that the *G. williamsonii* plants are the result of a single pollination event so that they are siblings. Two plants carrying a recessive mutation can give rise to offspring expressing that mutation, in this case deformed reproductive structures. If the mutation is rare in the population, then plants carrying both defective alleles would be very rare. I think this is the most likely explanation for *G. williamsonii* and I would expect it to occur periodically. Whether any-one is around to see it is another story. I started looking at *G. williamsonii* because I was interested in the fact that it was so rare, so I was certainly not expecting to come to the conclusions that I did. As far as juvenile fruit go, I had a collection of immature follicles from a plant growing at the Parks Vic office at Halls Gap*. They had all aborted and I suspect that they may have received pollen from any of a number of other *Grevillea* species growing nearby but that the crosses were incompatible so there might not have been any pollen tube growth down to the ovules. It is also possible that the female function is compromised by the deformed papillae and possibly other structures within the pistil. I haven't seen any evidence of seed set in cultivated plants of *G. williamsonii* in the absence of potential pollen vectors and take this to suggest that apomixis is unlikely to occur. I have not found any references in the literature to apomixis in Proteaceae either so if you know of any I'd be interested to get hold of them."

continued

* The original plants at Cassidy Gap produced very large numbers of follicles and these produced fertile seed. I collected a number of these and also recorded at least 7 seedlings growing around the parent plants. This would tend to contradict Elizabeth's conclusion based only on cultivated plants. NM.

Elizabeth continues "I have looked at the Mueller specimen (of *G. williamsonii*) along with the ones from Cassidy Gap. I admit that I am not a taxonomist but consider the specimens to belong to the same entity. I also think that a closer look within *G. aquifolium* will probably throw up new species and to some extent we were hoping that Gareth Holmes work would provide some guidance here. Unfortunately, the DNA regions that he has sequenced have shown little variation although they are commonly used ones. The hypothesis at the moment is that the species are all closely related and speciated "recently" so that there has not been time for the more slowly evolving region on the genome to accumulate variation according to species. This will be an ongoing project to resolve the complex at a lower level probably using population genetic techniques rather than those commonly sequenced. I have reached my conclusion based on a number of different grounds and while I agree that the morphology suggests that they should be different species, the deformed reproductive organs in conjunction with a lack of genetic distinction between *G. williamsonii* and *G. aquifolium* make me conclude that this is another example of plants looking different but not actually being another species."

In a further email Elizabeth states "I have the Roses Gap (Grampians) plant growing at the RBGM and have included it in some analyses. It also does not appear to be genetically distinct from *G. aquifolium* despite its apparent morphological differences. It has produced deformed floral organs, mainly just bracts, each year but has never produced anything resembling a functional inflorescence. I'm reserving my judgement on this one to some extent but Neville Walsh (Melb Herb.) is inclined to think it is another example of a gross mutation in *G. aquifolium* that has affected reproductive organs. If the Roses Gap plant produces an inflorescence I'd love to see it."

* Material cultivated from the single Roses Gap grevillea has flowered for me, Stephen Smart and Peter Olde. We will collect material to send to Elizabeth. Unfortunately, based on Elizabeth's unpublished research, both the Melbourne Herbarium and the Commonwealth Endangered Species Protection Act 1992 Australia have dropped *Grevillea williamsonii* from their listings of significant species. As a result it has now no legal protection and has been allowed to die out in the wild. Should future research reveal the error of this decision it will be on the heads of our departments of conservation. NM.

With this approach what is the position of *Grevillea infecunda*, which is also a sterile species? Has it also been investigated? It is possible that *G. williamsonii* is apomictic (ie it reproduces by the female gamete doubling its chromosome number), but this needs to be ruled in or out by the genetic work being undertaken. Species reproduced by apomixis would be assumed to be identical genetically, although research into the Nationally Endangered Pale Sunmoth being studied by Fabian Douglas has found that there is genetic variation both within and between the five populations of this species all of which reproduce entirely by apomixis (or parthenogenesis for animals). Genetic variation was observed within the population at Cassidy Gap before the plants were killed by a Cinnamon Fungus infestation. NM.



Grevillea williamsonii, *The Grevillea Book*, Vol. 3 (N.Marriott)

Australian Systematic Botany Home Page

At this site you can view the contents of previous issues, and print out the abstracts only of any articles. The cost of downloading the full text is horrific. Note the articles in the sample issue can be downloaded free of charge, including the paper 2 by de Kok on a group of the Eastern pultenaeas.

Here is the link:

<http://www.publish.csiro.au/nid/150.htm>

Nuytsia contents web link

Max McDowall reports on how to use the Nuytsia contents web link;

<http://science.calm.wa.gov.au/nuytsia/index.php> clicking on contents in the right box gives

<http://science.calm.wa.gov.au/nuytsia/issues.php> which displays the contents of the current issue. Clicking on link "query interface" opens <http://science.calm.wa.gov.au/nuytsia/search.php> where you can select the year OR the volume (and issue#) and/or an author's name to get a table of contents or a list of publications by an author. If you enter volume number only you get the contents of all the issues of that volume.

"My first attempts crashed because I added some inconsistent data – year, volume, issue no. The year did not match the volume number and I got "no records found". If you put in an author's name you will get all their publications (for that year, if you also entered year, or for that volume if you entered volume number). As you saw for the herbarium key, I was able to download the text as well as the abstract from volume 15#2, abstracts only are given for 15#1, but are not always given on the web for issues prior to volume 15. I saw that your paper on *Banksia rosserae* etc. was published in 15#1. You will be interested to see that Cranfield (15#2) has recognized your prostrate green-leaf form of *Grevillea bipinnatifida* as ssp. *pagna*. I hope that the other herbaria will do likewise with their publications. After all, the research was supported by public funds, and the public should have maximal and convenient access to the results, especially as specialist libraries are not always convenient or available for public use."

Grevillea bipinnatifida ssp. *pagna* (Proteaceae), a new subspecies for south-west Western Australia
RJ Cranfield Nuytsia 15(2):187–192 (2004)

This new subspecies is considered taxonomically distinct primarily due to its consistently narrower leaf lobes. The type locality is also geographically isolated from other populations being confined to a small wetland area on the Swan Coastal Plain north of Waroona c. 112 kms south of Perth.

Key to Subspecies in *Grevillea bipinnatifida*

1. Primary leaf lobes 5–7mm wide, opposing sinuses distance of primary lobes 5–10mm wide *Grevillea bipinnatifida* ssp. *bipinnatifida*.
1. Primary leaf lobe 1–3 mm wide, opposing sinuses distance of primary lobes 0.5–2mm wide *Grevillea bipinnatifida* ssp. *pagna*.

Ray Cranfield points out that there are a number of other narrow lobed populations, particularly at the foot of the Darling Scarp near Perth. However this new subspecies is geographically distinct in being the only population to occur in seasonally wet shrubland dominated by *Xanthorrhoea preissii* in black to grey sandy clay. It appears to be specific to that habitat. *Grevillea bipinnatifida* ssp. *bipinnatifida* on the other hand grows in a wide variety of habitats. *Grevillea bipinnatifida* ssp. *pagna* also has a later flowering period than ssp. *bipinnatifida*.

Peter and I have found a number of prostrate to decumbent fine-lobed populations growing in the Muchea and Bullsbrook areas in swampy country so it will be interesting to see how these compare with the populations from near Waroona. I have a beautiful, extremely fine-lobed form of *Grevillea bipinnatifida* that always flowers later than all my other forms – I obtained it from a nursery in Perth many years ago and have not been able to locate it in the wild. I suspect that it will turn out to be ssp. *pagna*.

Etymology: From the Nyoongar language of the traditional inhabitants of the area *pagna* means forest bush, reflecting the preference of this ssp. to grow as an understorey woodland plant.

continued

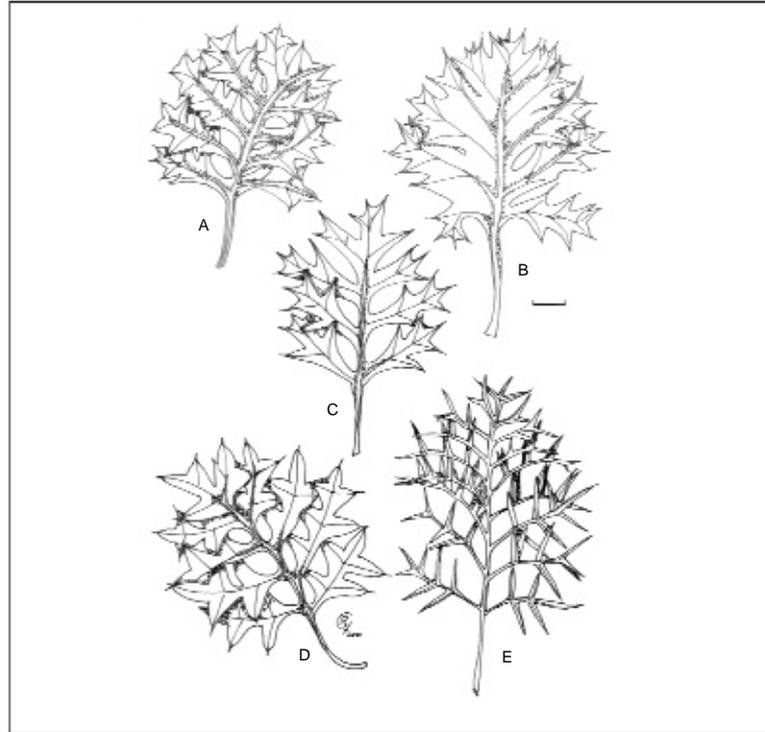


Figure 1. Leaf variations within *Grevillea bipinnatifida*. A - neotype, B-D - variations, E - subsp. *pagna*. Scale = 1 cm.

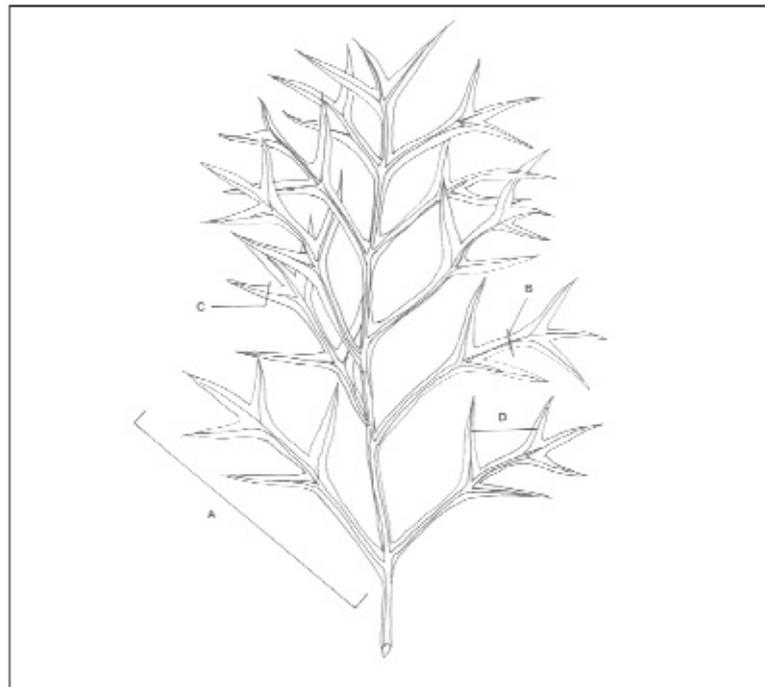


Figure 2. Leaf measurements. A - primary lobe length, B - width of sinus, across both sides of mid rib, C - width of primary lobe, D - width between sinus from mid rib.

Grevillea news

New Population of *Grevillea squiresiae* discovered by GSG Study Group Members

On their last field trip into outback WA in the spring of 2005 Werner Kutsche and partner Jenny Mills discovered a new population of *Grevillea squiresiae* several hundred kms west of its type locality at Mukinboodin. This is a very exciting discovery as *G. squiresiae* is an extremely localised Priority 1 species. The fact that it has been located in such a disjunct population raises the potential for the discovery of further populations between these two locations. Also Peter Olde and I have recently confirmed the incorrect determination of a specimen of *Grevillea nana* from Chiddarcooping Nature Reserve held in the Perth Herbarium is actually *G. squiresiae*. This is very close to Werner's location so it is possible that there may be good populations elsewhere in this district.

Werner's location details are as follows; Hunter Road, approx. 1km south of Hunter West Road intersection in Shire of Westonia. Plants were growing in yellow sand on both sides of a sand pit located on the northern side of the road on a corner as the road turns towards the north, south of the Hunter West road intersection. Other grevilleas growing on this site were *Grevillea paradoxa*, *Grevillea. teretifolia* and *Grevillea. didymobotrya* ssp *didymobotrya*.



Grevillea squiresiae (Werner Kutsche)

Research into *Grevillea repens*

Elie El-zar, an honours student at La Trobe University is currently undertaking a population genetics study of *Grevillea repens*. One of the aspects of the study is into the pollinators of *G. repens*. The study is also investigating as to whether the pollinators of the sympatric *Banksia spinulosa*, *Hakea decurrens* and *Lomatia siliifolia* may also have a role in the pollination of *G. repens*. Anyone who can help Elie should contact e2elazar@students.latrobe.edu.au

Research into the *Grevillea aquifolium* group

Gareth Holmes is currently finishing off a phylogenetic study of the *Grevillea aquifolium* 'group' of species as part of his Ph.D. candidature at the University of Melbourne. This is under Liz James (RBGM), Andrew Drinnan, Ary Hoffmann and Mark Blacket. He has been using a DNeasy kit to isolate DNA from leaf material and has found that this generally returns good quality but (generally) low concentrations of DNA. For the genetic relationship work he has looked at several chloroplast DNA regions and the nuclear ITS region. His latest work has even revealed some variations between some of the populations of *Grevillea aquifolium* ssp.

Research into *Grevillea linsmithii*

Cory Beaman, a grade 12 biology student has undertaken a biology research project based on his hypothesis "could the small individual group of rare *G. linsmithii* at the base of Mount Moon be vulnerable in its natural habitat because of its isolation". Part of his experimental design was to compare the Mount Moon population to the Moonview Nature Refuge population 9 kms away. Having researched *G. linsmithii* Cory has not discovered a pollinator at either population*. He is also researching how seed germination takes place with *G. linsmithii* – does the seed rely on fire for seed germination? He did not find any seeds at the Mount Moon population.

* I have noted New Holland Honeyeaters feeding on nectar from *G. linsmithii* flowers in my garden. Does anyone know of these two populations mentioned by Cory? It seems that *G. linsmithii* is a rare species with a considerably fragmented distribution on the higher peaks of the NSW/QLD border region. Neil M.

Grevillea Cultivars Book

Peter and I have been working on this new book for the last few years and we hope to have it ready for publishing by the end of this year. There are a number of the older cultivars that we have been having difficulty getting photos of. If you have a plant or know where there is a plant of any of the following please contact Peter or myself urgently.

Grevillea Research

Peter and I have been working on the Manglesia Group (Section 1. Grevillea Book) for the last five years. It will resolve problems within *Grevillea anethifolia* as well as describing a number of new species and subspecies.

Another paper almost ready to be published describes the new species we collected a number of years ago at Doubtful Island Point (often sold as G 'Scarlet King'), new subspecies for *Grevillea bracteosa*, *Grevillea florida* and *Grevillea althoferorum* as well as one or two other new species.

Other papers coming up will deal with *Grevillea patentiloba*, *Grevillea eriostachya* (half finished) and others in need of revision including *Grevillea huegelii*/*Grevillea sarissa*, the Integrifolia group including *Grevillea shuttleworthiana*, *Grevillea ceratocarpa*, and *Grevillea biformis*, and perhaps *Grevillea hookeriana*.



Grevillea eriobotrya (Werner Kutsche)

Grevillea eriobotrya

Another rare plant found by Werner and Jenny during their WA trip last year was a population of *Grevillea eriobotrya*. The plants were found in Karlgarin North Nature Reserve.

Sydney member and cut flower grower Gordon Meikeljohn has also found that *Grevillea eriobotrya* is proving to be an excellent cut flower and is looking for a supply of grafted plants. He says that the species holds its flowers very well and doesn't wilt, or shed its perianths as freely as many other grevilleas tend to do.

Illawarra Grevillea Park

OPEN DAYS 2006

April, Sat 29 & Sun 30

May, Sat 6 & Sun 7

July, Sat 22 & Sun 23

July, Sat 29 & Sun 30

September, Sat 23 & Sun 24

September, Sat 30 & October, Sun 1

Each year the Park is open on the last full weekend in April, first weekend of May, last two full weekends in July, last weekend in September and first weekend in October.

Location

The Park is located at the rear of Bulli Showground, Princess Highway, Bulli. (Turn at the Woonona-Bulli Sports Club).

Admission

\$4 adults, children accompanied by adults are free.

Barbeque and picnics facilities available

Bring your lunch and make it a family day!

Special openings for groups

Special openings for tour groups (such as bus tours by Garden Clubs) can be arranged

The park is open from 10am to 4pm.
For more information email at

grevil2@grevilleapark.org

Hybrid lost list

A large number of *Grevillea* hybrids have fallen into disuse and are no longer sold commercially, at least as far as I can find to date. Some of the taxa below are certainly around still but it is amazing how quickly they fall from favour and ultimately disappear. Some are not suited to cultivation in the major population centres of Sydney, Melbourne or Brisbane or there are better examples to plant now for gardens. We should not despair about it but an historical record would be useful. Members of the Study Group are asked if they can assist with flowering material of the following *Grevillea* hybrids. These would form the basis of descriptions for a new book on the *Grevillea* hybrids. A degree of certainty as to the correct naming of the plant would be necessary. In this respect a nursery label, personal planting record or other means of identification would be useful as proof. The *Grevillea* 'Magic Lantern' referred to below is not the plant of *Grevillea preissii* subsp. *glabrilimba* sold under this name but rather a plant produced and named by Peter Althofer in the 1950s. As far as I know it has been lost. Please contact me on my email address petero@bb.com.au if you can supply information about any of the plants below.

Grevillea 'Audrey'
Grevillea 'Bronze Beauty'
Grevillea 'Burra Beauty'
Grevillea 'Chablis'
Grevillea 'Chatsworth Lorrain'
Grevillea 'Cherry Brandy'
Grevillea 'Dorothy'
Grevillea 'Dot Hall'
Grevillea 'Edgar Charles'
Grevillea 'Eileen Rose'
Grevillea 'Elvan's Joy'
Grevillea 'Glen Sandra'
Grevillea 'Glen Pearl'
Grevillea 'Golden Sparkle'
Grevillea 'Hilda Herbert'
Grevillea 'Hunter Beauty'
Grevillea 'James Stanley'
Grevillea 'Jessie Cadwell'
Grevillea 'Jessie Morgan'.
Grevillea 'Judith'
Grevillea 'Lemon Sherbet'
Grevillea 'Lyn Parry'
Grevillea 'Lyrebird'
Grevillea 'Magic Lantern'

Grevillea 'Marion'
Grevillea 'Merinda Gordon'
Grevillea 'Olympic Flame'
Grevillea 'Parfait Creme'
Grevillea 'Pendant Clusters'
Grevillea Peter Pan
Grevillea 'Pink Pygmy'
Grevillea 'Pink Star'
Grevillea 'Pinkie'
Grevillea 'Poorinda Belinda'
Grevillea 'Poorinda Ben'
Grevillea 'Poorinda Beulah'
Grevillea 'Poorinda Chandelier'
Grevillea 'Poorinda Emblem'
Grevillea 'Poorinda Empress'
Grevillea 'Poorinda Enchantment'
Grevillea 'Poorinda Ensign'
Grevillea 'Poorinda Gaye'
Grevillea 'Poorinda Gemini'
Grevillea 'Poorinda Golden Lyre'
Grevillea 'Poorinda Halo'
Grevillea 'Poorinda Jeanie'
Grevillea 'Poorinda Joyce'
Grevillea 'Poorinda Julie'
Grevillea 'Poorinda Leane'
Grevillea 'Poorinda Marian'
Grevillea 'Poorinda Miriam'
Grevillea 'Poorinda Pendant'
Grevillea 'Poorinda Pink Coral'
Grevillea 'Poorinda Rachel'
Grevillea 'Poorinda Refrain'
Grevillea 'Poorinda Regina'
Grevillea 'Poorinda Rosalie'
Grevillea 'Poorinda Rosy Morn'
Grevillea 'Poorinda Royal Carpet'
Grevillea 'Poorinda Ruby'
Grevillea 'Poorinda Silver Sheen'
Grevillea 'Poorinda Splendour'
Grevillea 'Poorinda Stephen'
Grevillea 'Poorinda Vivacity'
Grevillea 'Poorinda Wonder'
Grevillea 'Pretty Pink'
Grevillea 'Radiant Pink'
Grevillea 'Red Cloud'
Grevillea 'Red Pearl'
Grevillea 'Ruby'
Grevillea 'Scarlet Gem'
Grevillea 'Silver Rose'
Grevillea 'Taminga' S. Cadwell
Grevillea 'Telopea Valley Frond'
Grevillea 'Tyalge Glow'
Grevillea 'Waverley Ghost'
Grevillea 'Poorinda Constance' variegated
Grevillea 'Windara Eve'

Loss of the Grevillea Study Group Living Collection

At 4PM on the 31st December 2005 a bushfire started out on the plains 30 kms NW of 'Panrock Ridge' Stawell. Whipped up by howling northerly winds, the fire soon ran out of control through a large area of state forest and then on into the western side of our Black Range. On the east side of the range we could track the fires movement by the massive cloud of smoke gradually moving closer and closer. By 8 PM we thought we were to be spared as the fire front had passed to the SW of us. We went inside and had tea by candlelight as the power had gone out due to the fires.

However with the arrival of a SW change in the weather, all of a sudden the fire had changed direction and was coming up and over the mountains and running down the hills towards us. We had spent the day preparing for the worst – tested the sprinklers around the perimeter of the house, the generator fuelled up and set to run the pumps should the power go out again, tanks filled, hoses connected, buckets of water placed all around the veranda's and fire fighting clothes at the ready to put on. Within minutes we were being attacked by ember showers. A big outbreak took off down below the front of our house and we fought fiercely for about half an hour to get it under control. Embers landing close to the house were successfully doused due to the sprinklers, but the ember attack meant there were fires popping up everywhere further out from the house.

Then the main front hit – due to the area burnt out by the ember attack we had a good firebreak down from the front of the house. However this also forced the fire to sweep around the burnt area on two separate fronts – it took all our strength and energy to rush from one side of the house to the other fighting the front as it pushed closer and closer to the house. Then all of a sudden it got into the Grevillea Gardens – there was a massive roar as the grevilleas burst into flame – any attempts to save the area would have proved fatal. All we could do was watch as all our years of work went up in smoke!

At one stage Wendy hurried back into the house to get us a drink – and quickly doused the candles still burning from tea. Also the house was full of smoke – we had left the air conditioner on and it had sucked in the dense smoke – and the smoke detectors were screaming.

By now the fire was on all sides of the house and we were really battling to keep it at bay. Garden after garden was being engulfed with flames 30 to 40 feet in the air. We discovered to our great dismay that most grevilleas are highly flammable whereas most acacias proved to be truly fire retardant! However this may well be due to the fact that the habit of most grevilleas is as dense ground hugging shrubs whilst acacias are generally taller and on a trunk. Anyhow they erupted into flame while none of the acacias burnt.

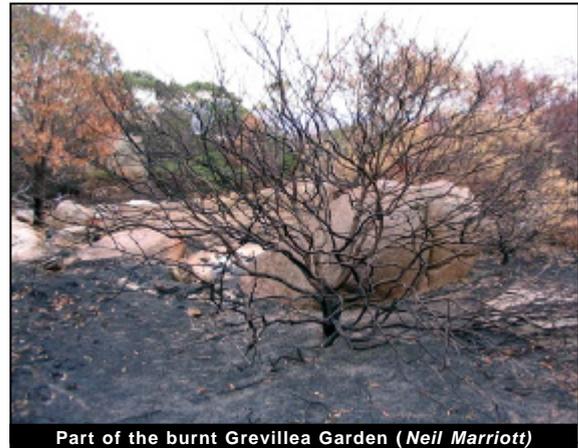
By now the fire had burnt right up to our nursery – the thought of our polyhouses and shade houses full of all our recently potted up new plants going up in flames urged us on, and we stood face to face with the fire and forced it back with the nursery hoses and backpacks. Many plants along the nursery edge are scorched but we saved the rest! We also managed to save most of the new gardens near the nursery. These were mulched heavily with washed river sand and this prevented the fire reaching the plants. Areas mulched with organic material on the other hand were all totally consumed by fire. Our rainforest gully in particular was so severely burnt that there is now little sign of the plants – the over-storey trees burnt so hotly at the base that many have fallen down.

Wave after wave of outbreaks kept us going without stop till 3.30 in the morning – just when we thought we had it all under control a huge outbreak exploded behind our sheds – a pile of railway sleepers had burst into flame! Finally doused, we staggered to bed at 4am for a couple of hours sleep.

continued

At daybreak we were off around the property putting out the many dozens of still-burning stumps and trees. Now, three weeks later we are again threatened by the massive Grampians fires and amazingly have had to put out a number of stumps that have re-ignited under the howling hot winds. They must have been still smouldering under the ground!

A few small areas of the Grevillea Gardens have survived, although many plants are brown and scorched. We are now hoping for a good autumn break so we can see just what species will re-shoot and what seedlings come up. At the moment I feel too flat to consider re-establishing the Grevillea Collection, perhaps it is time for this to be taken on by someone else. We will keep on growing plants but never again have such a large, comprehensive collection.



Part of the burnt Grevillea Garden (Neil Marriott)

Seed Bank

Matt Hurst

13 Urana Street, Wagga Wagga 2650 NSW
Phone (02) 6925 1273

Please include a stamped self addressed envelope.

\$1.50 + s.a.e.

<i>Grevillea armigera</i>	<i>Grevillea nudiflora</i>
<i>Grevillea aurea</i>	<i>Grevillea paniculata</i>
<i>Grevillea baileyana</i>	<i>Grevillea polybotrya</i>
<i>Grevillea excelsior</i>	<i>Grevillea pteridifolia</i>
<i>Grevillea decora</i>	<i>Grevillea pulchella</i>
<i>Grevillea floribunda</i>	<i>Grevillea refracta</i>
<i>Grevillea glauca</i>	<i>Grevillea superba</i>
<i>Grevillea goodii</i>	<i>Grevillea teretifolia</i>
<i>Grevillea johnsonii</i>	<i>Grevillea tetragonoloba</i>
<i>Grevillea juncifolia</i>	<i>Grevillea triloba</i>
<i>Grevillea leucopteris</i>	<i>Grevillea wickamii</i> ssp <i>aprica</i>
<i>Grevillea longistyla</i>	<i>Grevillea wilsonii</i>
<i>Grevillea monticola</i>	

Free + s.a.e.

<i>Grevillea aspera</i>	<i>Grevillea eriobotrya</i>
<i>Grevillea banksii</i>	<i>Grevillea linearifolia</i>
– grey leaf shrub	<i>Grevillea leucopteris</i>
<i>Grevillea banksii</i>	<i>Grevillea longistyla</i>
– grey leaf	<i>Grevillea monticola</i>
<i>Grevillea banksii</i>	<i>Grevillea nudiflora</i>
– red tree form	<i>Grevillea paniculata</i>
<i>Grevillea banksii</i>	<i>Grevillea petrophiliodes</i>
– hybrid pink fls	<i>Grevillea pterosperma</i> SA WA
<i>Grevillea barklyana</i>	<i>Grevillea pyramidalis</i>
<i>Grevillea bipinnatifida</i>	<i>Grevillea quercifolia</i>
<i>Grevillea</i> ‘Caloundra Gem’	<i>Grevillea robusta</i>
<i>Grevillea candelabroides</i>	<i>Grevillea</i> ‘Sandra Gordon’
<i>Grevillea decora</i>	<i>Grevillea stenobotrya</i>
<i>Grevillea dryandri</i>	<i>Grevillea victoriae</i>
<i>Grevillea delta</i>	<i>Grevillea wickhamii</i>
<i>Grevillea endlicheriana</i>	<i>Grevillea wilsonii</i>

Please note: seed from hybrid plants does not necessarily come true to type.

Spring in Yackandandah, Vic

Our 4-5 year old plantings are developing in size to the point of major pruning of big leggy species such as *Grevillea glabrata*. A creeper will fill in the lower branches.

We have about 80 species and forms, some of which are old enough to give a statement of their garden values here in N.E. Victoria. Species with good foliage character apart from floral performance have important value. A few picks would be *Grevillea alpine* Warby Range form, *Grevillea australis* prostrate Tasmanian form, *Grevillea diminuta*, *Grevillea asplenifolia*,

Grevillea arenaria salmon large form, *Grevillea johnsonii*, *Grevillea oxyantha* Victoria/ACT form, and *Grevillea willisii*.

As the young plantings mature we get to see the real character of each species or form. Of course the main flowering season is just beginning (spring) with *Grevillea levis* changing from fuzzy mid-green to cream to a coat of mid-pink. *Grevillea petrophiloides* has a few flowers at varying stages all year but in spring it has dozens of buds ready for display.

New property at Brogo, NSW

My wife and I have a new 40.5 hectare property north of Bega at Brogo. 38 hectares have already been zoned under a Voluntary Conservation Agreement but we still have approximately 2 hectares to establish as a native garden around the house once it is built during 2006. At present we put in a few plants but because of the usual wallabies and other grazing animals in our area most plants have been guarded with chicken wire surrounds. Some of the more spiky grevilleas and hakeas

already planted have survived reasonably well once they have toughened up. We look forward to getting more involved with extending the planting once we are permanent residents. Grevilleas, native terrestrial and epiphytic orchids, hakeas, water plants, food plants and petrophiles are some of our more specific interests. We look forward to receiving GSG newsletters at present and we will become more actively involved once we are permanent residents.

Bush Block at Burrill Lake, NSW

I am a new member of the GSG, retired and developing a native (almost entirely) garden on a 41 hectare block on the western side of Burrill Lake. After retirement at age 72 I completed an Advanced Certificate in Horticulture through Sydney University at Orange and hope to stay healthy long enough to grow *Actinotus helianthi*, *Blandfordia grandiflora*, *Telopea*

speciosissima and *Xanthorrhoea australis*. The soil is loamy sand with a pH under 6 which suits many Australian natives. Hopefully a house will be built in 2006 and grevilleas will form a large part of the garden area – about 2 hectares. Most of the land, about 35 hectares will be left as native forest.

Financial Report – February 2006

Income	
Subscriptions	\$180.00
Plant Sale	449.00
Donations	30.00
	<hr/>
	\$659.00
Expenditure	
Newsletter Publishing	\$240.00
Postage	138.30
Printing	192.50
Stationery	22.00
	<hr/>
	\$592.80

\$10,441.89 in Interest Bearing Deposit till
14 July 2006.

Balance in Current Account as at 4/2/06
\$11,054.81.

Balance in Business Cheque Account as at
26/1/06 \$14,152.66.

Office Bearers

Leader

Peter Olde
138 Fowler Rd, Illawong NSW 2234
Phone (02) 9543 2242
Email petero@bb.com.au

Treasurer and Newsletter Editor

Christine Guthrie
PO Box 275, Penshurst NSW 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 NSW 2516
Phone (02) 4284 9216

Curator of Seed Bank

Matt Hurst
13 Urana Street, Wagga Wagga NSW 2650
Phone (02) 6925 1273

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 to which you would like to subscribe. In this case search for 'grevilleas' and then subscribe.

Following this you will receive the latest emails regularly in your email to which you can respond. This is a good way to encourage new growers and those interested in the genus.

Postmessage: grevilleas@yahogroups.com

Subscribe: grevilleas-subscribe@yahoo.com

Unsubscribe: grevilleas-unsubscribe@yahoo.com

List owner: grevilleas-owner@yahoo.com

URL to this page:

<http://groups.yahoo.com/group/grevilleas>

Online Contact

1. President's temporary email address

petero@bb.com.au

2. The email group

grevilleas@yahogroups.com

3. URL for Grevillea Study Group website

<http://users.bigpond.net.au/macarthuraps/grevillea%20study%20group.html>

Deadline for articles for the next newsletter is 31 May 2006, please send your articles to petero@bb.com.au before this date.

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.

2005

2006

If a cross appears in both boxes this will be your last newsletter.