

Australian Native Plants Society (Australia) Inc



Ref No. ISSN 0725-8755

Newsletter No. 90 – October 2011

Newsletter No. 90

GSG Vic Programme 2011

Leader: Neil Marriott

693 Panrock Reservoir Rd, Stawell, Vic. 3380

Phone: 03 5356 2404 or 0458 177 989

Email: neilm@netconnect.com.au

Contact Neil for queries about program for the year. Any members who would like to visit the official collection, obtain cutting material or seed, assist in its maintenance, and stay in our cottage for a few days are invited to contact Neil. After the massive rains at the end of 2010 and the start of 2011 the conditions are perfect for large scale replanting of the collection. Offers of assistance would be most welcome.

Annual spring Grevillea Crawl –organised by NSW Chapter for this year.

GSG SE Qld Programme 2011

Morning tea at 9.30am, meetings commence at 10.00am. For more information contact **Bryson Easton** on (07) 3121 4480 or 0402242180.

Sunday, 30 October

VENUE: Home of Peter Macqueen,
507 Reushle Rd, Kleinton

SUBJECT: Provisional: Request Peter discuss his garden development

Sunday, 27 November

VENUE: Home of Jan Glazebrook and Denis Cox

SUBJECT: Grafting workshop conducted by Jan & Denis. Actual hands on participants will need to pay a fee to cover the costs of grafting materials

GSG NSW Programme 2011

For more details contact **Peter Olde 02 4659 6598**.

Field Trip in pursuit of *Grevillea beadleana*.

There will be a field trip to examine the populations of *Grevillea beadleana* from Friday October 21 to Monday October 24. Members interested in accompanying the expedition should contact Peter on 02 4659 6598 for details of meeting and assembly.

Special thanks to the NSW chapter for this edition of the newsletter. Please note deadlines on back page for the following newsletter.

Inside this issue:

- The Gordon *Grevilleas*
- Open Garden
- Phenolic Glycosides with Antimalarial Activity from *Grevillea* "Poorinda Queen"
- Report on *Grevillea rosmarinifolia* Interest Group (RIG) Field Trip around Melbourne – Part 2
- New Species in the Flora – final!
- *Grevillea beadleana*
- Growing *Grevilleas* in Japan

Save \$\$ by choosing email & EFTPOS

You can get **50% discount** by choosing to receive your newsletter by email and you save even more if you pay for 5 yrs.

Annual subscription by post is \$10 or \$40 for 5 yrs but email subscription is only **\$5 per year** or **\$20 for 5 years**.

You can save on cheque and postage fees by paying by **EFTPOS**. See account details on page 15.

The treasurer and newsletter editor will also be pleased that you saved her lots of time!!

I recently attended the International Botanical Congress in Melbourne which was both socially and intellectually enriching. The botanical community is moving swiftly to the future. In the last two decades, botany has been transformed from a science based on observation and intuition, simple description of morphology and species delimitation to one based on molecular analysis with a view to coming to an understanding of the evolutionary process and the position of the plant on the Tree of Life. As science advances and changes so must we if we are to have any hope of understanding what it is going on.

Some interesting changes adopted by the newly named International Code of Nomenclature for algae, fungi, and plants (ICN) included from next year the technical descriptions accompanying the scientific names for new plant species will no longer have to be exclusively in Latin. English will be acceptable. And botanists proposing new species will no longer be required to publish a paper in hard copy—an electronic version will do provided it is in an approved format and journal. Latin, however, will still be used for the two-word, scientific species names.

One scary thought though. If all the people on earth lived at the standard of industrialized countries, it would take two additional planets comparable to Earth to support them, three more if the population should double; and that if worldwide standards of living should double over the next 40 years, twelve additional “Earths.”

<http://www.mindfully.org/Sustainability/Science-Sustainability-Human-RavenAAAS14feb02.htm>

Other stories from the Congress included:

- Cellulose: from paper planes to powering jet planes: 30% of US transport fuelled by plants by 2030
- Australia’s wheat crop looks to have been saved from a devastating infestation of rust—for now.
- Protecting the potato from late blight
- 50 million seeds a kilometre – can we win the war on willow
- Snap a leaf on your iPhone
- How cotton was born: a million year-old mating opens up an improved future
- Fighting famine with botany – strigolactones and the African witchweed
- Could we grow drugs using sunflowers?

- How can we feed 9.5 billion people?
- How will climate change wine?
- The first flowers – revealed by synchrotron light
- Fossil eucalyptus and other Australian genera found in Argentina.

** There are a couple of projects that I would like to encourage for the near future but, first of all, to the near past. Tony Cavanagh and Bernie Shanahan are currently compiling the newsletter index, a massive job. As I write, the index is complete to Issue 50. If any other member would like to participate, your assistance would be most welcome. At present it is being compiled digitally in sections. I am sure we could find a small job there for any willing helper. Thank you to both members for their input. It is greatly appreciated. Especially helpful will be all the newsletter articles published and referenced as well as a reference to each species mentioned.

Project 1 – Digital Photos

I would like to obtain a digital photo bank of all species, subspecies and forms for uploading on to a *Grevillea* Study Group webpage together with a list of all species and subspecies accepted by the Group. I have already compiled a list of references on *Grevillea* for inclusion and would then hope to write a short treatment of each taxon together with horticultural notes. This is a large project but a worthwhile one. Whenever I am researching on the internet and type in a species name I am inevitably met with photos of wrongly identified plants. I have received donations that can be used for this purpose from a number of members including John Newton, my own, Neil Marriott, the late Cliff Coddington and Peter Althofer, Merv Hodge and others. I will compile a list of species that are missing in the next few months. Photos for the web do not have to be of high resolution. Maximum size is projected at c. 50 kb and even that might prove too big for the web page.

Photos of this size cannot be reproduced satisfactorily for publication and would therefore have no value to someone trying to use them other than digitally. Another possibility is to link to another site that has any photo we cannot upload. Lots of possibilities. If any member has experience working with websites and would be prepared to offer assistance, please contact me.

continued >

Project 2 – DNA research

The aim here is to collect and store specimens of all species of *Grevillea* for future DNA research. The process is quite simple but must be followed rigorously to have any scientific value.

DNA is best preserved by fast drying. Leaves are collected and dried with silica gel. A specimen must also be collected with the sample and both labelled with the same number (the collector's number).

Leaves from the same plant must be placed in a clip lock plastic bag and silica gel placed in to dry. The clip lock bag should be attached to the specimen are then sent to me. It will be stored at the Royal Botanic Gardens Sydney together with the reference specimen. Large leaves need to be torn into small pieces. Small leaves can be dried intact. Always collect DNA with clean hands. Do not use secateurs that may contaminate the material with another species' DNA.

Peter Olde

The Gordon *Grevilleas*

Some aspects of the article on this subject published in the last newsletter require correction or modification. The information about the death of Dorothy Gordon and the events leading to it was selected from among a number of unsubstantiated theories circulating at the time and subsequent to her death. The information provided was held honestly to be a reliable and historically true account of the events and was inserted to highlight the drama and tragedy associated with her *Grevillea* eponyms. I am advised by Nita Lester on behalf of the directors of Myall Park Botanic Garden that the information was incorrect and caused needless hurt to the family and friends by its new speculative nature. As the author, I apologise to all who were upset by this. Such an outcome was unintended.

The directors have further advised that Dave Gordon was 102 when he died in 2001 and that for more than twenty years, the property 'Myall Park' has been completely separate from Myall Park Botanic Garden in ownership, operation and title. The accommodation referred to is within Myall Park Botanic Garden.

Dave Gordon was a generous benefactor to a genus of plants that he loved. Neither he nor the Myall Park Botanic Garden have benefited financially from any sale of the Gordon *Grevilleas* through the horticultural industry. According to Betty McKenzie, *One Man's Dream* (1995: 50), Dave was philosophic about this, as he never wanted money from what had given him such joy. The protection of PBR and later PVR legislation were not available at the time. The Botanic Garden is managed by volunteers (including the Directors) with the help of grants and donations. Members of the Study Group are urged to give generously to this worthy cause.

Tony Cavanagh also writes:

Text: In Newsletter No. 89, we mentioned that the hybrid Grevillea 'Clearview Robin' was named by nurseryman Bill Cane after Dave Gordon's daughter Robyn (p. 14). I now find that this is incorrect.

While checking up on the parents of both 'Clearview Robin' and 'Poorinda Illumina' for an article on the hybrids 'Woodlands' and 'Sunrise', I read John Wrigley's and Murray Fagg's book *Banksias, waratahs & Grevilleas* (Collins, 1989), and found the story on the origin of the name 'Clearview Robin', as follows (p.229). It is apparently a hand-pollinated hybrid between the Snowy River form of *G. lanigera* and the Victor Harbour form of *G. javandulacea*. The hand pollination was carried out by Victorian nurseryman Bill Cane in the late 1940s and the named was suggested by that early promoter of Australian plants, Jean Galbraith. It actually refers to the colour of the flower, said to resemble the colour of a robin redbreast. So there we have it and apologies for the mistake. But just to show how confusing the whole business of hybrids can be, Wrigley and Fagg note that another seedling from this same hand pollinated cross was named "Crosbie Morrison", after the famous Australian naturalist.

Tony Cavanagh, Ocean Grove.

To Tony:

I acknowledge the etymological information is probably correct but correspondence from Leo Hodge at the time strongly disputes the origin of the plant, which, I am now satisfied, was not named for Robyn Gordon.

Peter

Open Garden

Our garden is open on the weekend of October 8–9
from 10am–4pm

The floral display is stunning at present. Mostly native plants with a strong *Grevillea/Eremophila* component but hundreds of other species from a wide range of genera, including *acacia*, *pimelea*, *epacris*, *darwinia*, *melaleuca*, *callistemon*, *eucalyptus*, *leschenaultia*, *dampiera*, *scaevola*, *boronia*, *eriodendron*, *philothea*, *prostanthera*, *westringia*, *banksia*, *hakea*, *isopogon*.. the list goes on and on.

Display gardens, rainforest with strong emphasis on *Proteaceae*, large fernery with many collected species, *Grevillea* standards lawn.

Helena Langdon will be Artist in Residence

Ask any questions or just simply watch as she paints

Tours at 11am & 2pm

BBQ lunch, tea/coffee cake for sale

Books and plants for sale

'Silky Oaks' 140 Russell Lane, Oakdale NSW

02 4659 6598, peter.olde@exemail.com.au

Entry fee \$7pp

Directions: Down the M5 take the Picton off-ramp and go to Picton (10 km). Turn left at the T intersection into Argyle St, then over the little historic bridge and first right into Barkers Lodge Rd. 17 km. Turn right into Russell Lane just past where you see the sign Oakdale.

See you there, Margaret & Peter Olde

Abstract downloaded from internet

Phenolic Glycosides with Antimalarial Activity from *Grevillea* "Poorinda Queen"

Simon P. B. Ovenden*, Melanie Cobbe†, Rebecca Kissell, Geoffrey W. Birrell, Marina Chavchich, and Michael D. Edstein

Defence Science and Technology Organisation, 506 Lorimer Street, Fishermans Bend, Victoria, 3207, Australia, and Australian Army Malaria Institute, Weary Dunlop Drive, Gallipoli Barracks, Enoggera, 4051, Queensland, Australia

J. Nat. Prod., 2011, 74 (1), pp 74–78

DOI: 10.1021/np100737q

Publication Date (Web): December 14, 2010

Copyright Published 2010 by the American Chemical Society

* To whom correspondence should be addressed.

Tel: +61 3 9626 8065. Fax: +61 3 9626 8410.

E-mail: simon.ovenden@dsto.defence.gov.au., Defence Science and Technology Organisation., Army Malaria Institute.

Abstract

In search of new antimalarial compounds, three new phenolic glycosides, robustasides E (1), F (2), and G (3), in addition to the known compounds robustaside D (4) and quercetin-7-O-[?-l-rhamnopyranosyl(1?6)-?-d-galactopyranoside] (5), were identified during chemical investigations of the MeOH extract from the leaves and twigs of *Grevillea* "Poorinda Queen". The chemical structures of the new compounds were elucidated through 2D NMR spectroscopy, while the absolute configuration of the sugar was elucidated through chemical degradation and comparison with an authentic standard.

Discussed in detail are the isolation and structure elucidation of 1?3, as well as the associated *in vitro* antimalarial activities for 1?5. Also discussed are the *in vivo* antimalarial and *in vitro* cytotoxic activities for 1, 3, and 4.

Report on *Grevillea rosmarinifolia* Interest Group (RIG) Field Trip around Melbourne 23rd - 24th August 2009

Part 2 (Part 1 in GSG 88 Feb 2011 edition)

The trip continued after the sad departure of all the Victorian members in the late afternoon. The three members from New South Wales travelled late into the evening to the home of Ian and Lynne Evans, Eaglehawk, Victoria who kindly provided hospitality and dinner. Ian had prepared an interesting agenda, having previously scouted out numerous populations for us to look at.

Our first port of call the next day 26 August saw us driving north of Bendigo accompanied by **Geoff Roche** to the interesting population in a road verge along **Heyhurst Rd., Bagshot**. It appears to be a seed-obligate population but because of the weed growth and the senescent plants it was difficult to establish if a secondary reproductive mode was present (eg. lignotuber). This virgate form to 1.2 m has a different flower colour on every plant ranging from lime green to variable shades of dark pink and cream. Associated species included *Acacia montana*, *A. pycnantha*, *Dianella tarda*, *Calytrix tetragoona*, *Euc. polybractea*, *E. microcarpa* with a goodly supply of weeds. We next spent considerable time tramping to a nearby lane on a farm boundary area where a solitary plant c. 30 cm high with pink and cream flowers was found that we were unable to distinguish from other forms of *G. glabella*. The gravelly loam soils were saturated with water which was still flowing over the surface after recent heavy rains. Species associated included *Acacia difformis*, *A. williamsonii*, *Melaleuca decussata*, *M. uncinata*, *Euc. Microcarpa* with a grassy weed component as well.

After lunch we headed down the Gornong–Axedale road to Bill Lord's property where we visited a recently discovered population on rocks high above the raging waters of the Campaspe River. Except for a large fallen log over the river, the slippery sides of which were negotiated more adroitly by some than others, we would have been prevented from collecting a specimen. The habitat was similar here to that in several other places visited later. Soils are skeletal sand among rocks apparently of volcanic origin (? granite or perhaps simply non-volcanic sandstone). The plants are ensconced in the crevices and shallow deposits around the rock. The habitat of this western form is longitudinally folded and north-trending fractured Ordovician sandstone, a thick, deformed sequence of deep marine turbiditic sandstone and siltstone

of the Ordovician Castlemaine Group, intruded by granite. A short segment of the Heathcote Fault Zone also occurs in the area, which exposes Cambrian oceanic meta-igneous rocks, shale and chert that underlie the Castlemaine Group. The area extends a short distance into the Siluro-Devonian metasediments of the Melbourne Zone. (Ref. Cayley, R.A., Skladzien, P.B., Williams, B. & Willman, C.E., 2008. Redesdale and part of Pyalong 1:50 000 map area geological report. Geological Survey of Victoria Report 128. GeoScience Victoria, Department of Primary Industries).

On a nearby property abutting Axe Creek, we found another small population suckering in much deeper sand-loam soil around the rocks above the creek. The area was much less rocky, degraded, with weeds and not at all beyond the reach of grazing animals. This may be near the point where the Campaspe is reported to cut through basalt (previous ref).

Then on to Redesdale, to private farmland owned by Brian and Jill James just 500 m upstream from the confluence of the Coliban River and James Creek. Here we revisited a healthy suckering population with grey-green leaves and cream/pink flowers growing high on rocks beside the raging James Creek. It was growing in inaccessible crevices with little natural vegetation left that has not been eaten out by sheep. It could only be accessed after we made a rock bridge across the fast flowing waterway.

Notwithstanding the numerous hybrids around the highway at Elphinstone that we visited in 2009, Ian led us to a new population of *G. rosmarinifolia* he had discovered recently in relatively undisturbed bushland at Chewton, beside the railway line between White Gum Track and Railway Dam Track on a steep cutting. There were not many plants but they were root-suckering and similar to other populations in the Castlemaine area. Ian managed to make a mountain goat of himself during this visit, clambering up the steep sides of the incline above the railway line with incredible dexterity. An interesting form of *G. alpina* also grew in the forest at this location. *Eucalyptus polyanthemos*, *E. macrorhyncha*, *Acacia pycnantha*, *A. paradoxa*, *Bursaria spinosa*, *Brachyloma daphnoides* were other associated species.

continued >

In the late afternoon we next visited a population on both sides of the railway line at Barker Creek 7 km north of Castlemaine. This resulted from a specimen sent to me in August 2010 by local indigenous nurserywoman **Frances Cincotta Newstead Natives, 4 Palmerston Street, Newstead Vic** who wrote:

*Would there be time on your trip later this month to look at a small population of *Grev rosmarinifolia* var *glabella* (??) at Harcourt? I refer to plants growing 1.5 m tall with grey leaves, growing close to railway line (not the ones at Geoff and Geraldine Harris's property in White Gum Road which I believe this group has already looked at). I was asked by DSE Bendigo to propagate from the Harcourt railway line population back in 2003 when they thought the rail upgrade may wipe out the population. I grew them from cuttings and hundreds have been planted in nearby schools and other places. I would need to check with Deanna Marshall of DSE as to location of the original Harcourt site as she took me there originally to get the cuttings (June 2003) and I have not been back and couldn't lead you to it. I do have 3 specimens of this form in my garden here at 4 Palmerston Street Newstead if you want to see the plant here. They are flowering at the moment. A scan is attached.*



Ian Evans at Chewton railway cutting

We were able to establish this as a pure and previously unknown population that we deemed of great conservation value, much to our surprise, as we thought it was probably some planted specimens beside the rail. These plants were suckering and similar to the Harcourt form (2009) and the Chewton form (above) previously collected. None of the plants seemed to be taller than 0.8 m. Most were only about 0.3–0.5 m tall. We visited Frances' garden next morning where the form was growing vigorously and suckering in her garden. An excellent garden plant we thought.

From here we travelled to Yandoit, first to a property on Jim Crow Creek owned by Paul Righetti. We only found one plant here but it was clearly the same as those at Redesdale and in very similar rocky habitat. This plant differed in having elongate peduncles. Further down the river on the Hepburn–Newstead Road we came to Stephanie's place which overlooked the flooded Jim Crow Creek that prevented us accessing more plants hanging over its course. We could see them but could not collect them. All of these plants occur in cleared farmland on steep rocky overhangs above the creek. The owners told us the *Grevillea* was once very common and that they used to collect the flowers for decoration as children. We then headed up to Hepburn Springs to where a rather abundant population grows, some with sparsely hairy styles but all root-suckering and clearly part of the wider riparian population that inhabits the rocks along rivers from Melbourne to central Victoria. This was an extremely interesting area not least for the diversion tunnel built through the rocks to divert water away from earlier gold mining. We passed through Shepherds Bush on the way and examined a form of *Grevillea alpina*, totally dissimilar to the typical Goldfields form and very much like the small-styled Tooborac form that grows nearby.

Ian has indicated some other populations that we did not get to visit for one reason or another. A visit to the Boort (Terrapsee) population is anticipated this year as well as other populations at Broadford, Strathfieldsaye, Glenhope, Kangaroo Flat, Big Hill (south side) and Diamond Hill near Bendigo, South Sedgwick near South Mandurang, Axe creek at Sutton Grange.



Grevillea rosmarinifolia at Jim Crow Creek

New Species in the Flora – final!

This is the final article in a series that updates the Study Group Newsletter on new species in the Flora of Australia, published in 2000.

Grevillea florida (McGill.) Makinson. Formerly included by Don McGillivray (1986) in *Grevillea uncinulata* as subsp. *florida*, this taxon has been raised to specific rank. There is a close relationship between the taxa but the ranking is supported here even though the argumentation used in the character differences is slightly flawed. For instance it is stated that *G. florida* has straight to slightly deflexed leaf apices, pedicels 8–14mm long and *G. uncinulata* has leaf apices with a strongly deflexed point, pedicels 4–6(–9)mm long. This would be correct except that the **larger-leaved form** from the Coomallo district of Western Australia remains included in *G. uncinulata* in this treatment. It has leaf apices and pedicels like *G. florida*. I have a new paper in process that proposes to name the largerleaved form of *G. uncinulata* as a new species, *Grevillea coomallo* MS. Differences cited in the indumentum of the style-end are not supportable. The strongest differences between *G. florida* and *G. uncinulata* are the differences in the size of the floral bracts (0.5–2mm long cf. 0.4–0.6mm long), the position of the pollen-presenter with respect to the style-end and the presence of an ear-like lobe on the posterior edge of the dorsal tepals below the tepal-lob. This latter character is a microscopic character difficult to observe with a hand lens. Another difference that I have observed is the shape of the style-end in polar view, i.e. looking down on it from above. *G. florida* has a snake-like style-end that tapers whereas *G. uncinulata* has a rounded style-end.

Grevillea hookeriana. *Grevillea apiculoba* and its two subspecies, as recognised in the Grevillea Book (1:185, 2:30–32), are still maintained as far as I am concerned but in the Flora of Australia, *G. apiculoba* has been again reduced to subspecies, although both subspecies are recognised, *Grevillea hookeriana* subsp. *apiculoba* (F. Muell.) Makinson and subsp. *digitata* (F. Muell.) Makinson. It is very frustrating when you cannot persuade your peers to your point of view. The issue revolves around the leaves. Occasional plants in *Grevillea apiculoba* have most leaves simple and linear, exactly the same as simple-leaved plants of *Grevillea hookeriana*. In the herbarium they cannot be distinguished. My argument is that this relates to collection bias. The plants

themselves that I examined (and they are very few) always have some leaves on the plant that can identify them to *G. apiculoba* (obovate with terminal lobing). The flowers are exactly the same for both species as they are for *G. armigera*. The populations must therefore be differentiated on foliar differences only. In the Grevillea Book (1:185) there are two typographical errors where the species is misspelt as 'apicoloba'.

Grevillea lavandulacea. In the Grevillea Book, *Grevillea lavandulacea* and *Grevillea rogersii* were maintained as distinct. Previously the latter taxon had been sunk into synonymy along with a number of other taxa (McGillivray 1993:425) although it was distinguished informally as the 'small-leaved form'. In one sense the work of McGillivray was a provocation to a more advanced study in which many of the discarded taxa could be recognised appropriately. In his treatment of *G. lavandulacea* McGillivray (1993:306) stated that 'Although the numerous other populations of *G. lavandulacea* are not as markedly distinct as the 'small-leaved form', their features are often sufficiently diagnostic to allow placement even in the absence of location data.' The features that show obvious variation of probable taxonomic significance are: habit; leaf arrangement, shape, and size; density of indumentum on various parts; and flower colour.' Recognition of *G. lavandulacea* subsp. *rogersii* (Maiden) Makinson without revising the whole of *G. lavandulacea* is a step in a future whole-species treatment that may not accept the ranking proposed and was probably premature. Nonetheless, it can be supported for the present.

Grevillea nematophylla. F. Mueller is newly revised and three subspecies are recognised correspondent more or less with the forms outlined in the Grevillea Book (3:48–49). Two specimens are unassigned to subspecies.

- 1 Leaves simple, terete; pistils (6–)8–15mm long
subsp. *nematophylla*
- 1* Either leaves divided or simple and either
vertically flattened or 3/4 round
- 2 Leaves or leaf lobes laterally flattened; pistils
7–9mm long subsp. *planicosta*
- 2* Leaves or leaf lobes 3/4 round; pistils 5–6mm
long subsp. *supraplana*

continued >

Grevillea pyramidalis. As treated in the Flora, *Grevillea pyramidalis* is a widespread species with three subspecies. *Grevillea leucadendron*, which was recognised as distinct in the Grevillea Book, has been treated as a subspecies, *Grevillea pyramidalis* subsp. *leucadendron* (A.Cunn. ex R. Br.) Makinson. There is morphological overlap between subsp. *pyramidalis* and subsp. *leucadendron* in the distribution of hairs on the leaves and the ranking proposed is not disputed here.

- 1 Leaves mostly <30cm long, glabrous to densely sericeous
- 2 Adult leaves glabrous or almost so; lobes 3–21mm broad, linear to very narrowly obovate; leaf rachis usually flattened above the first node
subsp. *pyramidalis*
- 2* Adult leaves usually densely to openly sericeous with lobes 1–5(–12)mm broad, rarely glabrous or nearly so and then lobes 0.6–1 mm broad; leaf rachis + terete above the first node
subsp. *leucadendron*
- 1* Leaves mostly 30–42mm long, glabrous or almost so
subsp. *longiloba*

Grevillea petrophiloides. Both subspecies treated by Olde & Marriott as *Grevillea magnifica* have been included in *Grevillea petrophiloides*, which now includes three subspecies. I strongly disagree with this treatment on many grounds, including classificatory, morphological and ecological. The two taxa subsp. *magnifica* and subsp. *remota* are clearly more closely related to each other than to *G. petrophiloides* on morphological and ecological grounds. Subsp. *magnifica* grows virtually sympatrically with *G. petrophiloides*. *G. oligomera* has been retained at specific rank. It is claimed that there is morphological overlap on the characters examined. *G. magnifica* can be distinguished by its more robust habit, subterete leaves with longer lobes, its more conspicuously emergent conflorescences, its longer individual racemes, longer, straw-coloured styles, granite-rock habitat. At least further research into the complex is recommended and the present treatment does not jeopardise recognition for conservation purposes.

Grevillea synapheae. The two new taxa recognised in the Flora, *Grevillea synapheae* subsp. *latiloba* (Meisner) Makinson and subsp. *minyulo* Makinson were treated informally by Olde & Marriott (1993). There are now four subspecies recognised in *G. synapheae*.

The species was still under study by us at the time the Flora was published but subsp. *minyulo* was then (and still is) thought to be a distinct species. The Flora treatment has left the taxon on Mt Misery as unnamed (subsp. A) and explicitly states that the species as a whole needs more work.

Key to four formal subspecies, and one informal subspecies

- 1 Longest floral rachises 1–2cm long; floral bracts falling at early to mid-bud stage
- 2 Undersurface of leaves with minute ascending or rarely appressed hairs openly to sparsely but evenly distributed on the lamina away from the main veins, the hairs persisting (sometimes sparsely) on adult leaves
subsp. *synapheae*
- 2* Undersurface of leaves glabrous or with very scattered hairs mainly on midveins when young
- 3 Leaf rachis angularly deflexed at each node, laterally flexuose (zigzag); leaf lobes strongly divaricate; plants sprawling or semi-prostrate
subsp. A
- 3* Leaf rachis straight or gently and evenly downcurved, not laterally flexuose; leaf lobes coplanar with rachis or only weakly divaricate; plant mounded to spreading or erect
- 4 Primary leaf lobes 5–15mm wide; ultimate lobes usually shallow and broadly triangular
subsp. *latiloba*
- 4* Primary leaf lobes 2.5–6mm wide; ultimate lobes narrowly triangular or oblong or ovate, rarely broadly triangular
subsp. *synapheae*
- 1* Longest floral rachises 2–6cm long; floral bracts often persistent until late bud stage or until after anthesis, occasionally falling in early bud
- 5 Ultimate leaf lobes straight, 3–11mm wide; lower surface of adult leaves with lamina on either side of midvein usually glabrous, rarely with a few scattered hairs; pollen-presenter conical, lacking a projecting basal flange or rim
subsp. *pachyphylla*
- 5* Ultimate leaf lobes gently curved, 2–3(–5?mm wide; lower surface of adult leaves usually with an open indumentum of appressed hairs; pollen-presenter conical with a distinct basal flange or rim
subsp. *minyulo*

Grevillea beadleana

www.environment.gov.au/biodiversity/threatened/publications/recovery/gbeadleana/habitat.html

Approved NSW and National Recovery Plan for the *Grevillea beadleana*

Threatened Species Unit, North East Branch
New South Wales Department of Environment and Conservation, 2004
ISBN: 174122 135 8

4. Habitat

- 4.1 Binghi Torrington State Recreation Area
- 4.2 Guy Fawkes River National Park – eastern population
- 4.3 Guy Fawkes River National Park - western population
- 4.4 Chambigne Nature Reserve
- 4.5 Enmore – Oxley Wild Rivers National Park
- 4.6 Geographic Information System (GIS) Predictive Modelling

4.1 Binghi Torrington State Recreation Area

- Topography and elevation
- Geology and soils
- Rainfall
- Associated vegetation

The populations of *Grevillea beadleana* on the Crown Leasehold land (Figure 2) and within the Torrington State Recreation Area may be contiguous. Further survey work is required in the region. Binghi is the largest naturally vegetated region on the north-west slopes of New South Wales (Benson 1991). The main land-uses in the area include tin mining and rough cattle grazing. The National Parks Association of NSW proposed the area as a National Park in 1976. However, this application was withdrawn in response to opposition from local miners and graziers (Benson 1991). The area was identified as wilderness under section 6 of the Wilderness Act 1987 but has not been formally declared. Fires are not frequent in the area of the Binghi population. The property owners at Grevillea Downs suggest that the last fire in the area was during the 19823 season (McWhinney pers. comm.) although Benson (1991) notes that ...on the knoll in the Binghi area, approximately half of the mature adults were killed in a 1988 fire. Few seedlings are present. Part of this area burnt in November 2002, however investigation of the response of *G. beadleana* to this event has yet to occur.

Many of the plants are estimated to be up to 30 years old, although the longevity of *Grevillea beadleana* is currently not known. This estimate is based on the time since the last large fire that burnt

most of the area occupied by *G. beadleana* (19823) and the fact that large mature plants exist in unburnt areas in 1988. Goats have been seen throughout the area occupied by *Grevillea beadleana* (B. McWhinney pers. comm.), and while there was no evidence of goat or other stock grazing upon plants during research undertaken by Durbin in 1996, it is thought that the stunted apical areas and a multi-sided branch spreading structure of some plants may be indicative of goat grazing (C. Gross pers. comm.).

Topography and elevation

The first populations surveyed in this region were found alongside Oaky Creek and on a flat, rocky knoll 1 km to the west (Benson 1991). Since this work, plants have been found throughout the area at elevations ranging from 600 m to 900 m above sea level on undulating terrain, steep slopes and flat plateaux.

Geology and soils

The parent material is Mole Creek Granite, which extends throughout the Binghi area. The rock is extremely siliceous, containing a greater than 75% silica content. The soil formed, is a relatively fine-grained loamy-sand mixture. The soil is poor in nutrients and is acidic (Benson 1991).

Rainfall

Based on data from several nearby properties, the Binghi area receives approximately 800 mm of rain annually (Bureau of Meteorology in Benson 1991). This site would experience higher temperatures and thus greater evaporation rates than the Guy Fawkes River National Park population (Benson 1991).

Associated vegetation

The vegetation at Binghi is woodland with a shrubby understorey component that is sparse on the rocky outcrops. Common trees include *Eucalyptus prava*, *E. andrewsii*, *E. subtilior*, *Callitris endlicheri* and *Angophora floribunda* (Clarke et al. 1998).

Common shrub and forb understorey species include *Acacia granitica*, *Baeckea densifolia*, *Leptospermum brachyandrum*, *L. brevipes*, *Notelaea linearis*, *Mirbellia speciosa*, *Persoonia terminalis* subsp. *terminalis* and *Phebalium squamulosum*. Grasses and sedges that frequently occur as mid-dense ground cover include *Schoenus ericetorum*, *Xanthorrhoea glauca*, *Lepyrodia leptocaulis*, *Lomandra longifolia*, *Aristida armata*, *Cymbopogon obtectus* and *Eragrostis brownii* (Benson 1991).

continued >

4.2 Guy Fawkes River National Park – eastern population

- Topography and elevation
- Geology and soils
- Rainfall
- Associated vegetation

Guy Fawkes River National Park was gazetted in 1972. Prior to this the land was vacant Crown land with licensed occupancies for grazing in some parts (Reid et al. 1996). The eastern population of *Grevillea beadleana* is located within an area declared in 1994 as wilderness under the Wilderness Act 1987. The population of *G. beadleana* is located north of Jordan's trail, along the rim of the gorge, and adjacent to the escarpment walking track. The population exists in an area of 4.25 hectares (Dwyer unpublished data; Gross et al. unpublished data; Streat 1997) with most of the older plants nestled among rocks and crevices that afford protection from fire. Many of the seedlings are growing in the loose scree between and below the rocky ridges. The scree substrate is active and plants are particularly vulnerable to disturbance from landslides.

Topography and elevation

This population occurs at an elevation between 900 m and 1000 m on small rocky ridges and interstitial scree that form part of a steeply sloping bluff adjoining an undulating plateau.

Geology and soils

The rock outcropping on the bluff is silica-rich (>75%), leucocratic, felsphatic granite and is part of a complex of granitic outcrops mapped as the Chaelundi Granite. Compared to another granitic rock specimen from Guy Fawkes Crag, 8 kms to the north (where *Grevillea beadleana* is absent), the rock has a low content of ferromagnesium minerals. The soil formed from this parent material is a skeletal, highly siliceous, sandy-loam substrate.

Rainfall

The rainfall is estimated to be approximately 1000 mm per annum (Bureau of Meteorology in Benson 1991).

Associated vegetation

The vegetation is sparse among the outcrops and currently large trees are dying as a result of unstable substrate conditions. In the upper stratum *Eucalyptus campanulata* and the rare *E. michaeliana* dominate with the occasional *Lophostemon confertus*. The middle stratum is dominated by a species of *Leptospermum*, *Allocasuarina littoralis* and *Notelaea microcarpa* along with *Grevillea beadleana*. Scattered clumps of grasses, herbs and sedges make up the ground stratum with the most common species being *Gonocarpus teucroides*, *Lepidosperma laterale*, *Poa sieberi*, *Stipa ramosissima*, *Pomax umbellata* and a species of *Aristida* (Benson 1991).

4.3 Guy Fawkes River National Park – western population

- Topography and elevation
- Geology and soils
- Rainfall
- Associated vegetation

The area where *Grevillea beadleana* occurs was purchased for inclusion in the Guy Fawkes River National Park in 1997. Prior to this the land was vacant Crown land with licensed occupancies for grazing in some parts (Reid et al. 1996). The area was identified as wilderness under section 6 of the Wilderness Act 1987 but has not been formally declared.

Topography and elevation

The area where *Grevillea beadleana* occurs is on a small rocky cliff in the Aberfoyle River gorge at an elevation of approximately 500 m, with a predominantly southerly aspect. The surrounding escarpment rises steeply to over 1000 m, and the Aberfoyle gorge is aligned in a north-east to south direction.

Geology and soils

The substrate where the western population occurs is reported to be skeletal soils over metamorphosed Permian sediments (P. Gilmore pers. comm.). These sediments include greywacke, slate siliceous argillite and pebbly mudstone (NSW Department of Mineral Resources 1969).

Rainfall

The rainfall is estimated to be approximately 800 mm per annum (Bureau of Meteorology in Benson 1991).

Associated vegetation

The associated vegetation in the area where the *Grevillea beadleana* plants were recorded includes open forest consisting of *Eucalyptus eugenoides*, *E. tereticornis*, *Angophora subvelutina*, *Allocasuarina littoralis*, *Hovea lanceolata*, *Jacksonia scoparia*, *Parsonia straminea*, *Melichrus adpressus*, *Lomandra* sp., *Aristida* sp., and *Goodenia hederacea* ssp. *hederacea* (P. Gilmour pers. comm.).

4.4 Chambigne Nature Reserve

- Topography and elevation
- Geology and soils
- Rainfall
- Associated vegetation

This site is located within Chambigne Nature Reserve south-west of Grafton, in the headwaters of Shannon Creek which forms part of the catchment of the lower Orara River. Although the land is managed by DEC access to the land is negotiated through private property. The population is located on a mesa-like outcrop. Six of the plants are huddled on the western side of the site on a rock

continued >

ledge that probably affords protection from fire. The Nature Reserve requires a thorough investigation for further occurrences of *Grevillea beadleana* and for a full floristic inventory. Surveys of the area in 1994 and 1995 revealed that there were only nine *G. beadleana* plants present over an area of about 2 hectares and later surveys only located six plants. A subsequent investigation in early 1998 found the population reduced to three adult plants and one seedling with the cause of the decline unknown.

Topography and elevation

The area is an isolated plateau rising approximately 150200 m above the adjacent valleys of Deep Creek to the west and Shannon Creek to the east. Cliffs and very steep slopes bound the area on the west and south, and more moderate slopes to the east and north. In places on the southern boundary the cliffs are up to 75 m high and are a series of broken ledges with numerous caves, overhangs and clefts. The top of the plateau is semi-circular, with a long ridge on the western side extending to the north. The plateau is relatively flat, with a number of high points rising to a maximum of 285 m above sea level. The area forms the upper catchment of an unnamed tributary of Shannon Creek.

Geology and soils

The geology of the area comprises Jurassic Kangaroo Creek Sandstone, consisting of quartz sandstone and feldspathic quartz sandstone. This substrate produces a coarse-grained sandy soil, with free drainage. The high quartz content produces a soil of low fertility. Although no soil samples have yet been analysed, descriptions have been of poor, skeletal sandy type soil.

Rainfall

The rainfall is approximately 1200 mm per year.

Associated vegetation

The vegetation is dry open forest dominated by *Eucalyptus psammitica* and *Corymbia gummifera* with a dry shrub understorey. Pockets of mesic vegetation may be found in small areas, such as those with impeded drainage, at the base of cliffs or in fire-free areas such as cliff benches and clefts. The area contains populations of two Endangered Species (*Grevillea beadleana* and *Melichrus hirsutus*), one undescribed species (*Bertya* sp. nov.), one rare species (*Dodonaea hirsuta*) and one poorly known species (*Eucalyptus psammitica*) (Sheringham & Westaway 1995).

Other species recorded at this site include *Acacia concurrens*, *A. hispidula*, *A. venosa*, *Allocasuarina littoralis*, *Brachyloma daphnoides*, *Chloanthes parviflora*, *Daviesia wyattiana*, *Eriachne pallescens*, *Hibbertia acuminata*, *H. vestita*, *Hovea longifolia*, *Jacksonia scoparia*, *Leptospermum trinervium*, *Melichrus procumbens*, *Patersonia sericea*,

Phebalium woombye, *Phyllanthus hirtellus*, *Platysace ericoides*, *Tetradlea thymifolia*, *Trachymene incisa*, *Xanthorrhoea johnsonii* (National Parks and Wildlife Service 1995). Further detailed surveys are required.

4.5 Enmore – Oxley Wild Rivers National Park

- Topography and elevation
- Geology and soils
- Rainfall
- Associated vegetation

This site, located on private property and within the Oxley Wild Rivers National Park, is 25 kms south of Armidale, in the catchment of the Macleay River. Access to the land is through private property and is currently being negotiated with the landowner. The area requires a thorough investigation for further occurrences of *Grevillea beadleana* and for a full floristic inventory. The area was identified as wilderness under section 6 of the Wilderness Act 1987 but has not been formally declared. This section of Oxley Wild Rivers National Park was included on the World Heritage List in 1994, as part of the Central Eastern Rainforest Reserves of Australia.

Topography and elevation

The area is on the edge of the New England tableland, at an elevation of 950 m above sea level. The slopes of the escarpment are very steep, falling away for 450 m to Salisbury Waters.

Geology and soils

A preliminary investigation revealed that the underlying bedrock is granite, producing a sandy loam substrate (L. Copeland pers. comm.). Geology maps for the area indicate that the granite type is Blue Knobby Ademetite, a biotite ademetite (Department of Mineral Resources 1988).

Rainfall

The estimated rainfall is 750 mm per year.

Associated vegetation

The vegetation is a layered woodland dominated by *Eucalyptus youmanii* and *E. bridgesiana* with a shrub understorey of *Leptospermum brevipes* and *Grevillea beadleana*. The ground cover consists of a well developed grass layer of *Themeda australis* and *Aristida* spp. Rare species recorded at the site include *Zieria* sp. nov., an undescribed species, *Eucalyptus magnificata* and *Acacia ingramii* (L. Copeland pers. comm.).

4.6 Geographic Information System (GIS)

Predictive Modelling

Durbin (1996) developed a predictive model for *Grevillea beadleana* that showed that the area

continued >

between the Queensland-NSW border and Glen Innes contains the most suitable habitat for the species. The model selected current and historical sites and highlighted many other areas throughout the region that may contain suitable habitat for the species. The Binghi region was not included in the model due to inadequate data being available for this area.

Last updated: Monday, 03-Sep-2007 07:39:25 EST

Department of the Environment, Water, Heritage and the Arts

GPO Box 787 Canberra ACT 2601 Australia
Telephone: +61 (0)2 6274 1111 ABN

Koji Miyazaki

Growing *Grevilleas* in Japan

A request for information from Koji Miyazaki who is a member of APS (in many states) and as well the Garden Design Study Group.

About myself

I am a gardener/planting designer specialised in Australian native plants in Yokohama city Japan (next to Tokyo). I learnt horticulture at TAFE Tasmania as an overseas student for two years from 1998 to 1999 (awarded the prize for the best student in 1999).

After graduated from TAFE course, I moved to Sydney and worked for a garden centre in Willoughby and a landscape design company in Warriewood. I worked as a casual nursery man in the garden centre for one year and as a permanent gardener in the landscape design company for two years in total.

When I was in Australia, I, of course, loved Australian native plants, but was not interested in that much as I am now.

I came back to Japan and settled in Yokohama. And established my own business 'Gokasya' in 2009.

I started as a 'normal' gardener at first, but over time, I had missed Australian plants deeply. After a deliberation, I decided to be a gardener specialising in Australian native plants.

The name of Gokasya is derived from the mean of 'Australian flower company' in Japanese characters.

Now I am trying to pioneer Australian plants in a coastal area called 'Shonan' where the native plants could demonstrate well, their ability to grow in harsh conditions such as strong wind and salt splash.

I am a member of APS NSW, TAS, VIC, and WA. Also a member of GDSG.

The purpose of my project

Australian native plants are getting more popular in Japan recent days. You can see them almost everywhere in Japan. However, people here are not provided much information about the plants, unfortunately.

Even growers are not really certain which species/hybrids they are growing, where the plants are from, and how to grow the plants correctly. I think it is not good situation at all for Japanese growers and for the consumers as well.

I have, therefore, decided to provide the correct information about native plants to both customers and growers as much as I can. I would like to write a plant book for each major native plant. For my first work, I chose *Grevillea*, because this plant is quite unique and is very popular to both Australian and Japanese.

It is so difficult for Japanese people, including myself, to recognise the difference of *Grevillea* hybrids. We need a reliable guide book about the native plants written in Japanese language soon.

The importance of receiving the completed forms from you

Although I am specialized in Australian native plants, it may be difficult to obtain the latest information such as new released hybrid, specific plants photos and so on from Japan. So that I would like a help from experts and the latest plants data from Australia.

All the forms I receive from Australia will be essential to complete my project. I am sure that I will be able to find a lot of hints for the project from the completed forms. (e.g. Trendy plants, suitable soil condition, plants' habitat and hardiness etc...)

I presume that I should pick up 100 of suitable *Grevilleas* to Japan's climate. (The number of 50 plants is too small to publish a book, and over 100 is too much work to me, probably.)

In completing the attached form will lead my project to a success.

Thank you for your interest and cooperation in this survey.

Koji Miyazaki

continued >

Questionnaire for *Grevilleas*

Please find 10 minutes to answer the following questions regarding *Grevilleas*.

(Answers may be duplicated.)

Q1: Where do you reside?

- QLD NSW
- ACT VIC
- SA WA
- NT

City/Suburb: _____

Q2: List the *Grevilleas* growing in your garden

Q3: Write down your favourite *Grevilleas*

Q4: Write down five *Grevilleas* you would recommend for a large garden

Q5: Write down five *Grevilleas* you would recommend for a very small garden

Q6: Write down five *Grevilleas* you would recommend for pot culture

Q7: Write down five suitable *Grevilleas* for hedges

Q8: Write down five suitable *Grevilleas* as groundcovers

Q9: Write down five suitable *Grevilleas* for a shady position

continued >

Q10: Write down five suitable *Grevilleas* for cutting flowers

Q11: Write down five hardy *Grevilleas* you have grown

Q12: Write your favourite *Grevilleas* for each flower colour

Red: _____

Orange: _____

Yellow: _____

White & Cream: _____

Pink: _____

Others: _____

Q13: Write down five suitable *Grevilleas* for the city of Yokohama, Japan

(It has very hot and humid summer, sometimes gets to more than 35°, more than 40 days of rain season prior to the summer, and quite cold winter, could get to below 0° and snow)

Q14: What is your recommended recipe for soil/potting mix for *Grevilleas*

Q15: Write your growing tips for *Grevilleas*

Thank you so much for your time and cooperation. I would like to review your answers effectively for writing my *Grevillea* book.

Koji Miyazaki

Fred Hort

Hi Peter and Neil

My brother Bert Hort lives in the Central Wheatbelt town of Quairading. He is a DEC volunteer with particular interest in surveying rare flora. He had approval to search a large private bush block on Morison Road, Shire of Kellerberrin c. 20 km NW of Bruce Rock. Yesterday he completed a survey of *G. dryandroides* subsp. *hirsuta* T. He said he counted 1443 mature plants and 108 dead ones over an area of c. 600m x 100m. He is hoping to see what else is at this location. The bushland is c. 3.3 km NS X 2.4 km EW – quite large for a piece of uncleared wheatbelt private property.

Cheers
Fred

Direct deposits can be made into the Grevillea Study Group account

BSB 112-879
Account Number 016526630
(St George Bank).

Please notify the Treasurer
of transfer
by email

(bruce.moffatt@tpg.com.au)

or by post to

Grevillea Study Group,
32 Blanche St Oatley, NSW 2223

Seed Bank

Matt Hurst

37 Heydon Ave, Wagga Wagga 2650 NSW
Phone (02) 6925 1273

Please include a stamped self addressed envelope.

\$1.50 + s.a.e.

<i>Grevillea aurea</i>	<i>Grevillea nudiflora</i>
<i>Grevillea baileyana</i>	<i>Grevillea occidentalis</i>
<i>Grevillea candelabroides</i>	<i>Grevillea paniculata</i>
<i>Grevillea drummondii</i>	<i>Grevillea polybotrya</i>
<i>Grevillea decora</i>	<i>Grevillea pteridifolia</i>
<i>Grevillea decurrens</i>	<i>Grevillea pulchella</i>
<i>Grevillea eriobotrya</i>	<i>Grevillea quercifolia</i>
<i>Grevillea eriostachya</i>	<i>Grevillea refracta</i>
<i>Grevillea glauca</i>	<i>Grevillea ramosissima</i>
<i>Grevillea johnsonii</i>	<i>Grevillea stenobotrya</i>
<i>Grevillea leucopteris</i>	<i>Grevillea superba</i>
<i>Grevillea longistyla</i>	<i>Grevillea teretifolia</i>
<i>Grevillea magnifica</i>	<i>Grevillea tetragonoloba</i>
<i>Grevillea magnifica</i>	<i>Grevillea triloba</i>
ssp <i>magnifica</i>	<i>Grevillea tritemata</i>
<i>Grevillea monticola</i>	<i>Grevillea wickamii</i>
<i>Grevillea nana</i>	ssp <i>aprica</i>
ssp <i>abbreviata</i>	<i>Grevillea wilsonii</i>
<i>Grevillea newbeyi</i>	

Free + s.a.e.

<i>Grevillea banksii</i> – grey leaf form	<i>Grevillea leucopteris</i>
<i>Grevillea banksii</i> – red tree form	<i>Grevillea longistyla</i>
<i>Grevillea banksii</i> – red prostrate	<i>Grevillea mimosoides</i>
<i>Grevillea Bon Accord</i>	<i>Grevillea</i> ‘Moonlight’
<i>Grevillea caleyi</i>	<i>Grevillea</i> ‘Moonlight x Ivanhoe’?
<i>Grevillea crithmifolia</i>	<i>Grevillea occidentalis</i>
<i>Grevillea decora</i>	<i>Grevillea plurijuga</i>
<i>Grevillea didymobotrya</i>	<i>Grevillea pteridifolia</i>
<i>Grevillea diversifolia</i>	<i>Grevillea robusta</i>
ssp <i>subtersericata</i>	<i>Grevillea</i> ‘Sandra Gordon’
<i>Grevillea eriostachya</i>	<i>Grevillea superba</i>
<i>Grevillea floribunda</i>	<i>Grevillea synapheae</i>
<i>Grevillea goodii</i> subsp <i>goodii</i>	<i>Grevillea tripartita</i> ssp <i>macrostylis</i>
<i>Grevillea johnsonii</i>	<i>Grevillea vestita</i>
<i>Grevillea johnsonii</i> ‘Orange’	<i>Grevillea wilkinsonii</i>

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

Fresh stocks of garden seed are desperately needed as most species are almost out of seed. Can members asking for seed please give an alternative list in case some species are no longer in stock. It is preferred if requests are sent with a small padded post pack. It costs less to send at approx \$1.50 per letter than padding an envelope at \$2.00 each or more so the seed will survive the trip down the sorting rollers. It's a good idea to send extra stamps with requests as extra postage is usually needed to be paid with almost every request. Leftover stamps would be sent back with your seed.

Financial Report – October 2011

Income

Subscriptions	\$490.00
Interest	82.10
Donations	30.00
Seeds	20.00

\$622.91

Expenditure

Newsletter publishing	\$240.00
Printing	311.10
Postage	89.90
Seeds	127.60
Bank fees	5.00

\$773.60

Amount in interest bearing deposit till 29/2/2012

\$27,189.56

Balance in current account 4/10/2011

\$7,334.74

Balance in business cheque account 4/10/2011

\$1,420.97

Office Bearers

Leader

Peter Olde
140 Russell Lane, Oakdale NSW 2570
Phone (02) 4659 6598
Email peter.olde@exemail.com.au

Treasurer and Newsletter Editor

Christine Guthrie
32 Blanche Street, Oatley NSW 2223
Phone (02) 9579 4093
Email bruce.moffatt@tpg.com.au

Curator of Living Collection

Neil Marriott
PO Box 107, Stawell Vic 3380
Phone (03) 5356 2404 or 0458 177 989
Email neilmariott@westnet.com.au

Curator of Illawarra Grevillea Park, Bulli

Ray Brown
29 Gwythir Avenue, Bulli NSW 2516
Phone (02) 4284 9216

Curator of Seed Bank

Matt Hurst
37 Heydon Ave, Wagga Wagga 2650 NSW
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@yahoogroups.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 email address
peter.olde@exemail.com.au
2. The email group
grevilleas@yahoogroups.com
3. URL for Grevillea Study Group website
<http://asgap.org.au/grevSG/index.html>

Deadline for articles for the next newsletter is 31 January 2012, please send your articles to peter.olde@exemail.com.au before this date.

If a cross appears in the box, your subscription is due.

Please send to the Treasurer, Christine Guthrie, 32 Blanche Street, Oatley 2223.

Please make all cheques payable to the Grevillea Study Group.

2010 2011

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

Membership fees

The annual subscription is \$10 per year or \$40 for 5 years. If you choose to receive the newsletter by email there will be a 50% discount ie membership will be \$5 per year – \$20 for 5 yrs. I would encourage everyone to take advantage of the savings by paying for 5 years, and choosing email. Overseas membership \$20 if posted.