

Australian Native Plants Society (Australia) Inc



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Newsletter No. 95 – June 2013

Newsletter No. 95

GSG Vic Programme 2013

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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.

GSG NSW Programme 2013

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

Special thanks to the Queensland chapter, with a bit of help from Neil and Max from Vic, for this edition of the newsletter. New South Wales members, please note deadlines on back page for the following newsletter.

Illawarra Grevillea Park OPEN DAYS 2013

July 6th, 7th, 13th, 14th

September 7th, 8th, 14th, 15th

Opening hrs are 10am – 4pm

Location

The Park is located at the rear of Bulli Showground, Princess Highway, Bulli.

Admission

\$5 adults, children accompanied by adults are free

Barbeque and picnic facilities available

email info@grevilleapark.org or
visit www.grevilleapark.org

GSG SE Qld Programme 2013

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

Sunday, 30 June

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

PHONE: (07) 5546 8590

SUBJECT: Review of the photographs from the 2012 Grevillea excursion

Sunday, 15 September

VENUE: Home of Merv & Olwyn Hodge, 8189
Loganview Rd, Logan Reserve, 4133

PHONE: (07) 5546 3322

SUBJECT: TBA

Sunday, 24 November

VENUE: Home of Fran & Jim Standing
Mount Clunie Road, Woodenbong,
NSW 2476

PHONE: (07) 4666 5118.

SUBJECT: TBA

Inside this issue:

- Grevillea Study Group excursion through SEQ & Northern NSW
- Grevillea Study Group (SEQ) report
- Report on Grevillea Study Group meeting – 24 February 2013
- The nucleotide genetic code in protein biosynthesis
- *Grevillea pteridifolia*: Fern-leaved Grevillea or Honey Wattle
- Grevilleas at Mt Clunie
- Grevilleas and measuring tree trunk diameter
- *Grevillea pteridifolia* prostrate
- How to grow touchy Grevilleas

Peter Olde

Thanks to the keen members from Queensland for this newsletter. Articles have been compiled gradually over the whole year from many members. It is a great relief to have this support.

Our 100th newsletter will be the first newsletter due in 2015. I hope to have the website up and running for the Grevillea Study Group by this time. I am preparing a list of all species and a short botanical and horticultural treatment of each, with a correctly named photo. Does anyone have any photos that could be used? When scanning pages of the internet I find an incredible range of photos and species supposedly representing one species or another but frequently incorrectly identified.

I have also prepared a full list of references to the genus. A key to the species will also be available. Tony Cavanagh and Bernie Shanahan have prepared an index to the newsletters which is very comprehensive.

Two members responded to my appeal for specimens of *Grevillea huegelii*. Andrew McDougall from Gawler sent a leaf specimen from two localities in South Australia, Owen and Kangaroo Flat, near Gawler. Barry Teague from Swan Hill sent two specimens with flowers, fruit and more critically, seed; one from the Sturt Highway New South Wales, NW of Euston; the

second from Victoria, from the Goschen Bushland Reserve, between Kerang and Swan Hill. The latter area is an excellent bird-watching area for those interested in a good inland locality. The following URL is worth a look too.

<http://tim-dolby.blogspot.com.au/2011/11/goschen-bushland-reserve-and-surrounds.html>

Grevillea huegelii and *Grevillea sarissa* appear to have a close relationship with the simple-leaved species of eastern Australia but establishing through what morphological character is more problematical. A study of the fruits and seeds may provide an answer.

I am constantly being asked when will the book on Grevillea hybrids be coming out? Good question. There are 24 new-release hybrids on the market in 2013. In addition to finalising manuscript, up-to-date treatments are also necessary. It is a difficult job to keep ahead of the market. Of course, it is realised that like any book on botany, it is out of date as soon as it is published. We still aim for publication this year.

I still have one last remaining full set of The Grevillea Book @\$150 for sale. Neil may still have a few sets but that is it! Any takers for my last set? Use my email address.

Noreen Baxter

Grevillea Study Group excursion through SEQ & Northern NSW

7 To 10 November 2012

7 November 2012

Our GSG were privileged to have three of the four authors of Mangroves to Mountains on this trip (Trip Leader Jan Glazebrook, Denis Cox and Glenn Leiper) who all shared their amazing level of botanic knowledge with the other participants: Bev & Bill Weir, Fran & Jim Standing, Ray & Noreen Baxter, Peter Bevan, Lorna Murray, Beth Mc Robert, and Verna Cornford who met at the Boonah Information Centre at 8.30am. Late in the day, as we passed through Tenterfield, Elaine and Graeme Reid from NSW joined the group.

All those eyes looking for and at plants, yet we overlooked the sightings of *Grevillea robusta* and *Jacksonia scoparia* which, for the entire trip, were by far the most frequently seen plants.

It was a particularly good flowering season for *Jacksonia scoparia* which looked magnificent in full bloom.

Please note that the plants listed in this report as having been seen on the excursion have been subject to "field identification" only.

Moon View Nature Reserve

The original plan had been to head to Mt Greville to see *Grevillea linsmithii* but, after consulting Barry Jahnke, Jan had been put in contact with a Boonah local, Wendy Creighton (0417 075940), who led the group to the Moon View Nature Reserve, Croftby. Glenn, who had been to the Reserve some years earlier with a group of Botanists and the owners, explained that Mount Bangalore and all the other peaks around were rhyolite and rhyolite extrusions, volcanic in origin,

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from a large larval flow billions of years ago that have all weathered down to little outcrops of rhyolite. Where ever the rhyolite is there is a wonderful explosion of species. In Tim Flannery's book, "The Future Eaters", he explains that these impoverished soils have an explosion of species because they are maximising their niche and fighting to get a toe hold in it. Wendy said that many plant species are reported as being found only on specific peaks in the district but invariably are found on Moon View Nature Reserve.

After driving as far as the track allowed the group walked along a bush track some distance before being surrounded by a wonderfully tall & dense stand of *Grevillea linsmithii*. Despite all eyes searching no flowers were found, all the bushes were developing seed. Our guide reported that after a fire through the area the *Grevillea linsmithii* plants had regrown.

On the walk in and out it was hard not to be sidetracked by the special plants that were all around, but with a lot of distance to travel in a few days blinkers were necessary to keep everyone focussed on Grevilleas alone!! Glen did spot a plant of *Gonocarpus effuses* that had only recently been named (Luis Webber had told him it was here). Despite the blinkers *Xanthorrhoea johnsonii*, *Acacia brunioides*, and *Hovea impressinerva* were noted in the area. The flora on this property appeared to be interesting and worthy of a return visit for a wider study, this could possibly be a day trip for the Small Plants Group or the Daytime Branch, especially the area beyond the stand of *Grevillea linsmithii* where Wendy said a profusion of species could be seen.

On the drive through the Reserve Jan Glazebrook had spotted an *Erythrina numerosa* (Batwing Coral tree) in flower – naturally everyone had to check it out on the return trip. Denis then led the convoy through the back roads to the Cunningham Highway. Our lunch stop was the Dalveen Rest area, where everyone enjoyed the planting of *Melaleuca williamsii* around the perimeter.

Cottonvale

After lunch Ray led the convoy down McCosker Road to Granite Belt Road then Pozieres Road to Thulimbah School Road, Cottonvale. The vehicles were parked along the roadside not far from the first bend and, as people stepped out of their car, there in the verge on both sides of the road were numerous plants of *Grevillea*

scortechinii ssp scortechinii in flower. These flowers blend into the vegetation so well that it took a bit of time to get eyes adjusted to spotting them. Evidently, despite this prolific patch of plants growing on the road side, it will not grow in local gardens.

Here there was an abundance of other plants to be seen: *Petrophile canescens*, *Acacia rubida*, *Chrysocephalum apiculatum*, *Leucochrysum albicans*, *Haemodorum austroqueenslandicum*, *Stylidium graminifolium*, *Wahlenbergia* sp, *Dillwynia retorta*, *Brachyloma daphnoides*, *Phebalium rotundifolium*, *Choretrum candollei*, *Jacksonia scoparia*, *Leptospermum brevipes* and *Phyllota phyllicoides* to mention a few.

Boonoo Boonoo Road

The group then headed into Stanthorpe, taking Amosfield Road to the Mount Lindsay Highway. The next stop was not far down the highway at the Boonoo Boonoo Road intersection where the vehicles were parked. A 600m (return) walk was taken up the dirt road, forking to the left we came upon a few very low bushes of *Grevillea juniperina* (orange colour form) in flower.

Also seen on this walk were: *Wahlenbergia* sp, *Diuris* sp, *Melaleuca ptyoides*, *Melaleuca styphelioides*, *Melaleuca linearifolia*, *Chrysocephalum apiculatum*, *Leucochrysum albicans*, *Melichrus procumbens*, *Goodenia bellidifolia* and *Billardiera scandens*.

Basket Swamp

The group continued on the Mt Lindsay Highway to the Basket Swamp turn off then took Linrock Road, and Woolool Wooloolni Road to the Basket Swamp Track, turning into the parking area just before the creek crossing. This area is on the edge of a field of *Grevillea acanthifolia* subsp *stenomera* and *Banksia spinulosa* var *neoanglica* (now *Banksia neoanglica*).

Also seen here were: *Epacris obtusifolia*, *Gleichenia dicarpa*, *Brachyscome* sp, *Boronia microphylla*, *Persoonia tenuifolia*, *Patersonia glabrata*, *Comesperma ericinum*, *Goodenia hederacea*, *Hakea laevipes*, *Hakea salicifolia*, *Stylidium graminifolium*, *Haemodorum austroqueenslandicum*, *Dampiera purpurea*, *Hybanthus monopetalis*, *Leptospermum arachnoides*, *Notelaea ovata*, *Melaleuca pallida* and *Petrophile* sp.

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From here we travelled on to Tenterfield and out to our first overnight stop at Mole River Station. We were accommodated in the original farm house which, although old, was very clean and comfortable. Our hosts Sarah and David Caldwell joined us at Happy Hour. Then after a BBQ cooked by Peter, assisted by Ray, everyone fell into bed, fairly tired after a full on day of activity.

8 November 2012

Day 2 was another early start with a "shopping frenzy" at the Mole River Station Nursery before heading out towards Torrington to see *Grevillea beadleana* on private property.

Torrington Road

Seen at a road side stop along the way were: *Dodonaea viscosa*, *Callitris glauca*, *Grevillea viridiflava*, *Petrophile canescens*, *Poranthera corymbosa*, *Persoonia linearis*, *Laxmannia compacta*, *Calotis cuneifolia*, *Goodenia hederacea*, *Ozothamnus diosmifolius*, and *Acacia torringtonensis*.

Silent Grove

After a few false starts we made it to the correct private property. At the house the owner Barry McWhinney gave precise instructions to follow the heavy duty 4 x 4 road over the hill around the edge of another dam (on the right hand side) and onto a stone crossing over a waterfall at Domatia Creek where, on the edge of the most inhospitable granite creek bed, we found a stand of *Grevillea beadleana* including a number of seedlings and, just before the waterfall/creek crossing, *Grevillea viridiflava*.

Also seen at this spot were: *Actinotus helianthi* (amazingly growing in depressions in the granite boulders), *Melaleuca williamsii*, *Melaleuca pallida*, *Drosera spatulata*, *Drosera pygmaea*, *Zieria* sp, *Petrophile canescens*, *Baeckea diosmifolia* and *Lomatia silaifolia*.

Gwydir Highway

At the intersection of Mount Lindsay & Gwydir Highway we searched for another patch of *Grevillea juniperina*, failed to locate it – then about 300m further down the Gwydir Highway Jan & Denis spotted it off the road. Here some of the *Grevillea juniperina* appeared to be a ground cover form while others were small compact shrubs and varied in colour from orange to a more reddish shade.

At this point we also saw: *Diuris* sp (purple double tailed orchids), *Pimelea linifolia*, *Stylidium graminifolium*, *Goodenia* sp (ground cover), *Craspedia variabilis*, *Chrysocephalum apiculatum*, *Calochilus robertsonii* (bearded orchid), *Viola betonicifolia* (very large flower form), *Brachyscome scapigera*, *Brachyscome rigidula*, *Brachyscome stuartii* and *Brachyscome* sp.

Gibraltar House

After getting organised at Gibraltar House, which is next to the Dandahra day use area, everyone went for a walk out the back into the NP. There we saw *Olearia nernstii*, *Grevillea acerata*, *Grevillea acanthifolia*, *Dampiera stricta*, *Dampiera sylvestris*, *Dampiera* sp, *Boronia microphylla*, *Boronia algida*, *Boronia anethifolia*, *Pyrrosia rupestris*, *Bauera rubioides*, *Platysace ericoides*, *Cryptandra scortechinii*, *Prostanthera nivea*, *Prostanthera phyllicifolia*, *Dillwynia retorta*, *Blandfordia* sp (Christmas Bells but in bud not flower), *Allocasuarina glauca*, *Allocasuarina rigida*, *Mirbelia rubiifolia*, *Kunzea bractiolata*, *Kunzea* sp, *Banksia marginata*, *Conospermum burgessiorum*, *Pultenaea* sp, *Bossiaea* sp, *Sphaerolobium vimineum*, *Thelymitra ixioides*, *Daviesia* sp, *Hovea* sp, *Isopogon* sp, *Zieria smithii*, *Melaleuca pallida*, *Viola hederacea*, *Goodenia rotundifolia*, *Leptospermum* sp, *Baeckea imbricata*, *Xanthorrhoea* sp, *Comesperma ericinum* and *Gleichenia dicarpa*.

9 November 2012

On the road from Gibraltar House to Mulligan's hut a number of *Telopea aspera* in flower were seen - one bush was particularly heavy in flower and the tips of the petals were white. At the Mulligan's Hut day use parking area the high altitude *Leptospermum trinervium* was in flower.

Mulligans Hut Walk

(Murrumbooee cascades/Little Dandahra Creek/Atrichornis trail).

At Little Dandahra Creek, by Mulligan's Hut, we paused to look for Platypus – again our birdwatcher Fran Standing, through binoculars, saw one a distance away. Along the creek banks were *Dampiera purpurea*, *Blechnum indicum* and *Prostanthera ovalifolia*.

The chosen walk went down the path towards the Barra Nulla cascades. On this walk we also

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saw *Grevillea acerata*, *Boronia algida*, *Boronia microphylla*, *Bossiaea* sp, *Dampiera purpurea*, *Dillwynia retorta*, *Hakea salicifolia*, *Hibbertia* sp, *Hibbertia stricta*, *Hibbertia aspera*, *Hibbertia riparia*, *Hybanthus monopetalus*, *Melaleuca pallida*, *Melichrus procumbens*, *Olearia nernstii*, *Patersonia glabrata*, *Patersonia sericea*, *Persoonia* sp, *Velleia spathulata*, *Xanthorrhoea* sp, then Jan spotted a small group of *Grevillea rhizomatosa* despite searching no flowers were found in this spot. Jan explained this grevillea grows by suckering, no fertile seeds have ever been reported.

Our next discovery was a patch of a *Cooperookia barbata* (pink), *Dampiera purpurea* (pink and blue), *Duboisia myoporoides*, *Calochlaena dubia*, *Lastreopsis* sp, *Blechnum indicum*, *Stitcherius lobatus*, *Doodia aspera*, *Solanum* sp, *Callicoma serratifolia* (a Black wattle that is not an acacia), *Linospadix monostachya*, *Orites excelsus* (a grevillea relation), *Gastrodia sesamoides* (potato orchid), *Cyathea leichhardtiana*, *Xanthosia pilosa* (Southern Cross flower) and then, for the sure footed who ventured down the hillside, *Grevillea mollis*. Glenn, Ray & Jim (who had been behind taking photos) caught up and headed on down the path to get photos. It was reported to be a good colony of *Grevillea mollis* and that this is the only colony in the world.

On the return walk we saw *Anthrachophyllum archerii* (a fungus), *Billardiera scandens*, *Trimenia moorei*, *Hibbertia dentata*, *Hibbertia scandens*, *Rauwenhoffia* sp, *Cordyline rubra*, *Boronia* sp, *Lomandra spicata*, and *Synoum glandulosum*.

After morning tea back at the Mulligan Hut day use area we headed down the Dandahra Crags Peak Walk to the left (when facing the creek) we saw *Hakea salicifolia*, *Boronia microphylla*, *Boronia algida*, *Grevillea rhizomatosa* (with a couple of flowers), *Gleichenia* sp, *Olearia nernstii*, *Leptospermum trinervium*, *Dampiera purpurea*, *Bossiaea buxifolia*, *Syncarpia glomulifera* and lots more *Telopea aspera*.

Dandahra Crags Car Park Walk

In the afternoon we took the Surveyors Trail hoping to see the *Blandfordia* (Christmas bells) in flower but it was still a bit early although plenty were seen in bud. Also seen were: *Hakea laevipes*, *Leptospermum arachnoides*, *Banksia marginata*, *Leptomeria acida* (wild currants), *Leptospermum polygalifolia* (2 or 3 subsp), *Notelaea linearis*. As the heavens opened we crossed the road to head back to Mulligan's

camp and saw *Melaleuca ptyoides*, *Grevillea acerata* and *Grevillea acanthifolia*, *Boronia algida* and *Boronia microphylla*.

10 November 2012

Before leaving Gibraltar House everyone took one last stroll into the fringe of the NP where *Goodia lotifolia*, *Glycine tabacina*, *Olearia oppositifolia*, *Rhytidosporum diosmoides*, *Dillwynia juniperina* and *Stackhousia viminea* were seen in addition to the same species noted on the first evening.

Fortis Creek National Park

The final morning we headed through Grafton to Junction Hill where we met Dave Mason who led us out to Fortis Creek National Park to see *Grevillea banyabba*. Unfortunately it had just finished flowering so we only saw one much photographed flower. Walking down the Universal bush trail we saw: *Platysace ericoides*, *Lambertia formosa*, *Petrophile canescens*, *Acacia hispidula*, *Banksia spinulosa*, *Banksia integrifolia* then *Grevillea banyabba*. Also seen were: *Persoonia tenuifolia*, *Hibiscus heterophyllus*, *Hakea* sp, *Chloanthes parviflora*, *Cryptandra longistaminea*, *Schizaea bifida*, *Ceratopetalum gummiferum*, *Dodonaea triquetra*, *Dodonaea viscosa* ssp *cuneata*, *Cryptostylis subulata* (Upside Down Orchid), *Leucopogon* sp, *Philydrum lanuginosum* and sedges.

Pringle Way (the Lawrence Road)

Next we went to the Diloon/Garalang Rural Fire station to see *Grevillea masonii*, where the plant on one side of the intersection had been wiped out, on the other side there were 5 or so plants. Further down Summerland Road we took a right turn into Pringle Way (the Lawrence Road) where another *Grevillea* patch had been burned and slashed, yet a bit further down the road there was what appeared to be a quite healthy stand of *Grevillea masonii*. Then it was into Lawrence for lunch and home.

What a trip! Jan, Denis and Glenn demonstrated their superb botanical knowledge, the company was great, the catering was great, the accommodation comfortable and to top it all we saw every *Grevillea* we had hoped to locate, an unbeatable combination which made this the best plant trip ever for some of us. Thank you to all the participants. Including *Grevillea robusta* we were able to see 12 different species of *Grevilleas* in the wild.

Grevillea Study Group (SEQ) report

With the passage of time it gets difficult for some of our more experienced Grevillea Study Group members to attend meetings. In trying to overcome this some members car pool, others pick up someone living near them - those sharing transport seem to enjoy the added social interaction.

At our June 2012 meeting Jan Glazebrook, Ray Baxter, Lorna Murray & Bryson Easton showed Grevillea photos from their 2011 travels around Australia which made those present keen to see Grevilleas in their own environment, which fitted in with the planning for a GSG trip.

Some discussion at meetings focussed on our main event for the year, the GSG 2012 trip through SEQ and northern NSW, which was organised by Jan Glazebrook and Denis Cox. All that consultation and planning resulted in a very enjoyable, hectic and hugely successful November trip from Croftby Qld to Gibraltar Range NP in NSW and all points in between as has been reported separately. Following the trip participants' photographs have been combined into a comprehensive photographic record for participants and GSG (SEQ), also a Power Point Presentation has been made that can be used for meetings etc. As plant lovers do not wear blinkers in the bush there was a lot to be seen and photographed besides grevilleas.

Once again Jan Glazebrook and Denis Cox, with the assistance of Bryson Easton, mounted the GSG Display at the SGAP Queensland Flower Show. After the Flower Show there was an informal review of this activity with the aim to make it less onerous on the few stalwart volunteers who mount the display and, hopefully, catch the public interest. As a result some changes are planned for 2013 Display, these will have to be reviewed and improved after every Flower Show to ensure that the aims which generated the changes are met.

The last meeting for 2012 was held out at Robyn Wieck's property in Oakey with the subject being a tour of Robyn's garden. Despite being a bit too far for some members to travel this meeting was a great success with 16 members attending and four visitors. Not only was it a pleasure to enjoy Robyn's garden it was wonderful to have country members and friends attend.

Our first meeting for 2013 was at Peter Bevan's home and Nursery in Lowood which got the GSG 2013 programme off to a good start with twenty two members and six visitors in attendance. Of course the draw card was Peter's Nursery and his talk on his current propagation methods. Plus a bonus was Peter's impromptu trip to Coominya to enjoy a stand of hybrid Grevillea in the bush.

Including some country meetings in the GSG calendar appears to have been successful in that the number of attendees seem to be on the increase; the meetings have gained an additional dimension with rural input into discussions; and the folk gardening in isolation on rural properties seem very keen for contact with like-minded gardeners. Personally, I have felt enthused and invigorated by these meetings and, judging by the conversations, others feel the same.

As we have planned a few short trips for 2013 and will miss most meetings, I sought a volunteer to take on the Admin role and am very grateful to Fran Standing and Helen Howard who have offered jointly to take it on. Bryson Easton will continue to chair the GSG (SEQ) meetings. In closing I must acknowledge the tremendous support and assistance that Jan Glazebrook and Denis Cox have given to GSG and myself, their enthusiasm and expertise has been invaluable – thank you all.

Report on Grevillea Study Group meeting – 24 February 2013

Bryson Easton opened the meeting at 9.30am at the home of Peter & Carol Bevan. The unscheduled early commencement was not appreciated by some members who usually enjoy a relaxed morning tea on arrival prior to the meeting. Bryson commenced by thanking Peter & Carol for hosting the meeting, and asked Peter to advise re any housekeeping arrangements, which he did. He then welcomed all attendees especially the visitors and new members to the meeting.

The attendance book was circulated and members asked to note any apologies. There were 22 members and 6 visitors in attendance. Apologies were received from Beth McRobert, Joan Wilkinson, Glenn Leiper, Merv Hodge & Bev Leggett.

Record of Last Meeting: was emailed to all on 15 December with the 2013 Meeting Calendar & again with notice of this meeting.

Business arising from minutes

1. The call for a volunteer for the GSG SEQ administration role was answered jointly by Helen Howard and Fran Standing. Bryson thanked them for volunteering and Noreen Baxter will liaise with them to ensure a smooth transition.
2. Photographs from 2012 GSG Excursion had been finalised. Copies made by Noreen and Ray Baxter were distributed to the trip participants at meeting, copies will be sent with the participants who could attend at the meeting. One copy of the Photographic Record CD has been retained with the GSG records and is available for members to borrow.
3. One copy of the 2012 GSG Excursion Report and the Photographic CD had been mailed to Peter Olde.

GSG Excursion 2012 Power Point had been completed by Noreen Baxter in consultation with Denis Cox & Jan Glazebrook. Jan & Denis have the GSG Power Point on a flash drive for use as required, it is scheduled to be shown at the GSG June 2013 meeting, and, if required, for an SGAP Region meeting. It is in 5 parts: 1. Grevilleas; 2. Boonah to Mole River Station; 3. Mole River Station to Gibraltar Range; 4. Gibraltar Range; 5 Gibraltar Range to Lawrence. Segments can

be used if required for a short show eg just Grevilleas or Gibraltar Range or combined for a longer version.

Planning for GSG 2013 Display at SGAP Mt Coot-tha Flower Show is underway: Noreen had sent an email to Lawrie Smith requesting a table and electrical outlet for our revised display format. Lorna Murray advised Lawrie will not be Display Officer after April. GSG will need to liaise with the new D.O. to ensure our requirements are considered in the planning.

1. Noreen had circulated members requesting photographs of Queensland Grevilleas for use in the Mt Coot-tha Flower Show Power Point Display. Ray Baxter, Glenn Leiper, Lorna Murray, Bryson Easton have made photographs available in addition to those held by GSG from the estate of Cliff Coddington and the GSG excursions in 2009 & 2012. Joan Wilkinson has offered to source some if needed and Bryson will liaise with Merv Hodge re his photos. Ray, Noreen, Jan & Denis will meet shortly to progress the Power Point. The Baxter's have limited time available to finalise this project, but once the basics are established it will be relatively simple to add photos, make amendments and generally improve the product over time. It was suggested that its use might be trialled at the ANPSA conference in Qld later this year, although it is targeted at the general public in Queensland.
2. There was further discussion re the Flower Show Display: a. The positioning of the monitor & the flowers – suggestions were to have a slightly raised plinth for the screen or even a small table behind the flower display table; b. Bryson undertook to collect the beer bottles and make the plastic jackets to surround them; c. Bryson offered to organise the hire of a TV screen and Jan offered their laptop – these valuable items will need to be secured in situ & possibly taken home overnight; d the need for a table cloth was raised.

General Business

Peter Bevan spoke of a stand of interesting grevilleas, of various colours, in a bush regrowth area about 16k from his house to just north of Coominya. If anyone was interested, he would

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be pleased to take them out to look at it after the meeting. Most attendees accepted this offer – see note after the meeting.

Fran Standing & Helen Howard asked if GSG (SEQ) were going to respond to the request on page 8 of GSG Newsletter 94 for a list of grevillea species members were growing in their gardens. After discussion Fran & Helen advised that they would forward list of their species and that other members might consider going the same. The list is being developed so everyone interested can share and source species material.

Bryson said how pleasing it was to see in the Newsletter that Kuranga Nursery at Mt Evelyn have now a full time grafter on staff and hope to make grafted species more readily available for GSG members and the general public. This generated the usual discussion of how we are losing species plants from our gardens and these are not being replaced with new fresh material and how more members should be encourage to graft grevilleas. It was reported that some nurseries are successfully mailing bare rooted grafted plants as part of their business.

The viability of cuttings grown from old plants as per Newsletter 94 article p18 by Tony Cavanagh was discussed. A new member said he heartily recommended a publication by Angus Stewart "Book on Propagation" to potential propagators. If you want to go into this further Ray Baxter has advised there is an article available at www.rooting-hormones.com on 'Everything You Wanted to Know About the Rooting of Plant Cuttings' by Hortus USA.

Joan Hubbard, from Chinchilla, raised concern re a problem with her G. "Lady O" – its leaves have been turning yellow, she has already tried many usual remedies. The experienced growers considered this to be a soil problem and accordingly advised giving it a feed of iron chelates, possibly even watered onto the leaves.

Show and Tell

1. Peter showed his successfully propagated *Grevillea scortechinii* subsp. *scortechinii* plant.
2. Also Peter had two vases of mixed grevillea blooms from his garden on display.

Discussion topic: Peter reported on how his cutting propagation success rate has improved using a commercially available polystyrene frame

with pellets of rooting substrate. He kindly made some available if anyone wanted to buy (at cost price) a small price.

He demonstrated his current propagation techniques using this system but did say he does still do some cuttings the usual way. Peter prefers to source his cutting material from thriving pot plants.

Bryson thanked Ray & Noreen for all their work for GSG and Fran & Helen for taking on the admin role. He also thanked Peter & Carol for hosting the meeting and all who attending before closing the meeting at 11.35 a.m. Everyone then took a short break for refreshments before Peter's conducted tour of the three or four gardens he manages.

After Peter's garden tour there was another short lunch break before the Small Plants meeting convened. After that meeting the very pleasant impromptu field trip to Coominya took place.

Coominya Field Trip: Most participants took Peter up on his offer of an impromptu Field Trip to a large stand of grevilleas just east of the village of Coominya at the intersection of Wills & Rocky Gully Roads. Fifteen years ago the Council gave permission to remove soil from the block alongside the intersection to improve the motorists' visibility. As a result all the topsoil was removed down to a gravel base from the area close to the road. Since then considerable regrowth has occurred.

In the regrowth vegetation, and extending beyond it, an extensive stand of hybrid grevilleas have grown. Some very mature grevilleas were visible in the nearest house on the other side of the road.

The grevilleas in the stand were of variable ages from seedlings to quite old. Some of the mature tall shrubs or small trees had been blown over in the recent storms, most appeared to be continuing to survive in a horizontal position with just a few roots still in contact with the soil.

There were obvious variations in foliage shape and colour. On this visit there were only a few plants in flower, the colours varied from golden yellow to cream, or creamy white and red.

A very interesting patch, no doubt Peter will be monitoring it closely. In discussion it was proposed the plants and flowers from the stand should be identified by the prefix "Coominya" then the colour.

The nucleotide genetic code in protein biosynthesis

In the interesting article on DNA in GSG NL 92 (August 2012) by Kerry Rathie, the reference to the genetic code in the second paragraph should read 'nucleotide triplets' instead of 'amino acid triplets'. The code is explained in the following article.

The double-stranded DNA helix in the chromosomes consists of two antiparallel complementary polymer strands in which purine deoxyribonucleotide bases A and G in one strand pair with pyrimidine deoxyribonucleotides bases T and C, respectively in the other. In **chromosome replication** leading to cell division, each strand acts as a template for replication of the other strand by complementary base-pairing.

Structural genes are stretches of DNA which control protein biosynthesis. Genes are demarcated by short specific nucleotide sequences on one of the two DNA strands recognised by the cell as the starting points for transcription of that strand into single-stranded **messenger RNAs**. **Transcription** proceeds by complementary base-pairing similar to that used in chromosome replication. (In the RNA polymer, the ribonucleotide base U corresponds to the structurally similar deoxyribonucleotide base T of DNA).

After further processing, messenger RNA is taken up by the ribosomes where it encodes the biosynthesis of a specific protein by sequential **translation** of the linear RNA sequence into the linear amino acid sequence of the growing polypeptide chain. As the growing polypeptide or nascent protein chain emerges from the ribosome it folds into a specific conformation determined by its amino acid sequence. (This conformation results from the clustering of the side-chains of hydrophobic amino acid residues into the interior of the protein away from contact with the aqueous phase and the ionized and hydrophilic amino acid residues on the exterior, hydrogen-bonded to the water molecules of the aqueous environment).. Recognisable features of this folded conformation include the alpha helix first described by Linus Pauling, and the pleated sheet, both stabilized by internal hydrogen bonding among various sections of the peptide backbone.)

There are 20 different species of amino acid (residues) in proteins and each is encoded by one or several different **triplet nucleotide sequences** or **codons** in the messenger RNA. Since there are four different ribonucleotide bases in RNA -- A, G, U, and C, there are $4 \times 4 \times 4 = 64$ possible triplet codons. Of these codons, 61 code for amino acids and three function as terminator codons. One codon (AUG) coding for the rare amino acid methionine can also double as the initiator codon, setting the reading frame for initiating translation of the messenger RNA, proceeding codon by codon. Deletion of a single nucleotide after this point on the messenger RNA would shift the reading frame and result in the synthesis of an entirely different and non-functional protein, A table of the **Nucleotide Code** listing all the 64 triplet codon assignments can be found on the Web.

Note:

1. When nucleic acids and proteins are synthesized, one molecule of water is eliminated for each nucleotide residue or amino acid residue added to the growing polymer chains. The resulting molecular linkages are known as the nucleotide bond and the peptide bond, respectively and form the backbone of these polymers. The various nucleotide bases and amino acid side chains then occur as lateral substituents on these backbone structures.

Direct deposits can be made into the Grevillea Study Group account

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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**

***Grevillea pteridifolia*: Fern-leaved Grevillea or Honey Wattle**

Phillip Hamilton worked with the Uw Oykgangand and Uw Olkola elders to write down the language and collect the other materials for the aboriginal 'Oykgangand and Olkola Dictionary'. Uw Oykgangand and Uw Olkola are Australian Aboriginal languages spoken in central Cape York Peninsula in far north Queensland.

According to Wikipedia [http://en.wikipedia.org/wiki/Pakanha_language] **Pakanha** (Bakanha), or **Ayabakan**, is a nearly extinct Paman language spoken on the Cape York Peninsula of Queensland, Australia. As of 1981, there were 10 speakers of the language, originally spoken by the aboriginal Pakanha people in the central part of the Cape York Peninsula.

Aboriginal

in Uw Oykgangand and Uw Olkola - **olwol** (uk -/ug -)
in Pakanh - **theepu** (yuku -)

The **Fern-leaved Grevillea** or **Honey Wattle**, *Grevillea pteridifolia* (family Proteaceae), is a slender tree with fine silvery leaves and brilliant orange flowers. The leaves are divided, giving them a fern-like appearance.

This tree's nectar is popular with many birds such as the blue-eyed honeyeater and the rainbow lorikeet. It is also taken by flying-foxes and sugarbag bees. People also eat the nectar by sucking it directly from the flowers or shaking it from the flowers into water and mixing it up. For more information on plant food and the traditional subsistence of Aboriginal people in central Cape York Peninsula, see the Edible plant products page [<http://www.oocities.org/athens/delphi/2970/food.htm>].

Fran & Jim Standing compiled by Helen Howard

Grevilleas at Mt Clunie

The list below gives an idea of the species and cultivars we are growing here at Mt Clunie. The species are in italics.

*grafted

acanthifolia ssp *acanthifolia* 2m x 5m; *acropogon* 0.3m x 1–2m; 'Allyn Radiance' 1m x 1.5 m; *alpina* 1.5m x 1.5m; 'Amy Lou' 1.5m x 1.5 m; 'Apricot Charm'* 1.5m x 1.5m; *aquifolium* 2m x 2m; *aquifolium* 0.5m x 1m; *arenaria* ssp. *canescens* 1.5m x 1.5m; *armigera** 2.5m x 2.5m; *asparagoides** 1–2m x 1–2m; *asteriscosa** 2–3m x 2–3m; *aurea* seedling; *aurea x glabrescens** 2m x 1.5m; 'Austraflora Bon Accord' *; 'Austraflora Fanfare' groundcover x 2 m; *australis* prostrate form; 'Autumn Waterfall' 1m x 2m; *baileyana* White Oak 2 m; *baileyana** 8–10m tall; *banksiii* 3m x 3 m; *banksii* Prostrate red; *banksii** 3m x 2m; *banksii* Procumbent x 2 m; *banksii* Decumbent white; *banksii* 'Candelabra Pink'; *banksii* 'Ruby Red' ground cover x 1.5m; *banyabba** 1m x 1.5m; *barklyana* 2–6m x 3 m; *baueri* subsp. *asperula* 1–2m x 1–2m; *baxteri** 1–3m x 2m; *beadleana* 1.5m x 2.5m; 'Bedspread' 0.3m x 2 m; *biformis* subsp. *cymbiformis** 1.5–2m x 2 m; 'Big Red' 2–3.5m x 2m; 'Billy Bonkers' 1m x 2m; *bipinnatifida* 1mx 1.5m; *bipinnatifida** Tall standard; *bipinnatifida* Dark red; *bipinnatifida* 'orange form' 1m x 2 m; *bipinnatifida* 'Jingle Bells' Tall standard; *biternata** 1.5–2.5m x 2.5m; 'Blood Orange' 3–4m x 2 m; 'Bobby's Blush'* 1–2m x 2 m; 'Bobby's Blush'* low standard;

'Boongala Spinebill' 2m x 4m; *bracteosa* subsp. *bracteosa** 1m x 1m; 'Braegga' Tall standard; *bronwenae** 1–1.5m x 1m; 'Bronze Rambler' Groundcover to 0.3m x 4m; 'Bulli Beauty' 2m x 2m; 'Burgundy Beauty' 4m x 3m; 'Bush Lemons'* 2–3m x 1.5m; *cagiana** 1.5m x 2m; *caleyi* 3m x 5m; *calliantha* 1m x 2–3m; 'Callum's Gold' 2–3m x 2m; *candelabroides** 2.5m x 4m; *candolleana** 0.5m x 0.5m; 'Carol Ann' 1m x 1.5m; 'Carpet Queen' Prostrate x 1m; *chrysophaea** 1m x 1.5m; 'Cherry Clusters' 0.5m x 1m; *cirsifolia* 0.5m x 1m; 'Coastal Impressive' 3–4m x 1.5–2m; 'Coastal Sunrise' 2m x 2m; 'Coastal Twilight' 3m x 2m; *coccinea* subsp. *coccinea*; 'Coke'* 3m x 3m; *commutata** 2m x 3m; *concinna* subsp. ? * 1.5m x 1.5m; 'Coorora Cascade' groundcover; 'Crimson Glory'* 0.6m x 0.5m; 'Crimson Yul-lo'* 2.5m x 1m; *crithmifolia* 'Green Carpet' prostrate; 'Crowning Glory' (Lassiter's Gold) 2–2.5m x 6m; 'Crushed Ice' 1–1.5m x 2–3m; *curviloba* subsp. *curviloba** Standard 1.5m x 2m; *curviloba* subsp. *incurva* semi-prostrate x 3m wide; *decora* 2.5m x 2m; *decurrens** 3m x 2m; *delta** 1.5m x 2m; 'Desert Gold'* 2m x 2m; 'Deuagold' 1.2m x 1.5m; 'Diane's Blush' 1.5m x 1.5m; *didymobotra* subsp. *didymobotrya** 2m x 1m; *didymobotrya* subsp. *involuta** 1.5m x 1.5m; *dielsiana** 2m x 1m; *diffusa* subsp. *filipendula* 1mx 1m; *dimorpha** 1m x 1m; *dryandroides* subsp. *dryandroides** 0.5m x 1m; *dryandroides* subsp.

continued >

*hirsuta** low standard; 'Elegance'* 3m x 2m; 'Ellendale'* 1.5m x 1.5m; 'Ember Glow' 1m x 1m; *endlicheriana* 2.5m x 0.5m; *eristachya** 1.5m x 2m; 'Eukey Carpet' 3m x 8m; Eukey Spreader' 2m x 8m; *evansiana** 1m x 1.5m; *exul** 3m x 1m; *fastigiata** 2m x 2m; *filloba* 1.5m x 1.5m; 'Firesprite'; 'Flamingo' 3m x 3m; *flexuosa* 1–2m x 1–2m; 'Flora Mason' 2m x 2m; *floribunda* subsp. *floribunda** 1.5m x 1.5m; *floribunda* subsp. *tenella** 1.5m x 1.5m; 'Forest Rambler' 1.5m x 2m; *fulgens** 3m x 2.5m; *fuscolutea** 2m x 2m; *georgeana** 2m x 2m; *glauca** 6m x 3m; 'Goldfever' 0.3m x 1.5m; 'Golden Lyre' 2m x 6m; 'Goldilocks'* 2m x 2m; *gordoniana* 5m x 3m; 'Grassfire' Groundcover x 2m; 'Green Glow'* ground cover; *heliosperma* x *decurrens** 4m x 2m; 'Hills Jubilee' 1.5m x 1m; *hockingsii*; 'Honey Barbara' 3–4m x 2m; 'Honey Gem' 2.5m x 3m; 'Honeybird Pink' 1m x 1m; 'Honeyeater Heaven' 0.8m x 1m; *hookeriana** 1.5m x 2m; 'Hot Lips'* 1.5m x 1.5m; *humilis* subsp. *lucens*; *humilis* subsp. *maritima* 0.5m x 1m; *humilis* subsp. *maritima* 'Green Point' 1m x 1m; *humilis* subsp. *maritima* 'Angourie Pink' 1m x 1m; *humilis* subsp. *maritima* 'Woodburn Pink' 0.7m x 1m; *iaspicula** 1–2m x 1–2m; *ilicifolia* subsp. *ilicifolia** 2m x 2m; *infundibularis** 0.5m x 3m; *insignis* subsp. *insignis** 3m x 2.5m; *intricata** 2m x 3m; 'Ivory Whip'* 1.5m x 1.5m; 'Jennifer Joy' 1m x 1m; 'John Evans' 1–1.5m x 1–1.5m; 'Jo-lo'* 2–4m x 2–3m; 'Jory' 1m x 1m; *juniperina* subsp. *allojohnsonii* 0.3m x 1.5m; *juniperina* 'Allyn Magic'; 'Just Peachy' 2m x 2m; 'Just Rosy' 4m x 3m; 'Kay Williams' 3m x 2.5m; 'Kerry's Gold'* 1m x 1m; 'Kimberley Gold'* 2m x 2m; 'Knockout' 1m x 1m; 'Lady O'* 1m x 1.5m; 'Lana Maree'* 1.5m x 3m; 'Landcare' (= 'Piccolo Pink' 1.5m x 2m; *lanigera* 'Mt Tamboritha' low x 1m; *laurifolia* Groundcover x 3m, also Tall standard; 'Lawson Giant' 1m x 1m; *leiophylla* 'Fairy Floss' 0.5m x 0.75m; *leiophylla* 1m x 1m; *leptobotrys** 'Dryandra forest' 1m x 1m; *leptobotrys** 'Tutanning' 0.4m x 3m; *leptopoda** 1m x 1m; *leucoclada** 2m; *leucopteris** 2–3m x 2–3m; *levis** 1–2m x 1–2m; 'Lilliane' 1m x 1m; 'Lime Spider'* 2–3m x 2m; *linearifolia* pink 3m; *linsmithii** 1.5m x 1.5m; 'Little Honey' 2m x 2m; 'Lollipop!'* 1.5m x 1.5m; *longifolia* 3–4m x 3–5m; *longistyla** 5m x 1m; 'Loopy Lou' 1.5m x 1.5m; *maccutcheonii** 1m x 1m; *macleayana** 3m x 3m; 'Magic Lantern' 1m x 1m; *magnifica* subsp. ?* 2.5m x 1m; 'Mallee Sensation' (*semperflorens*) low standard; *manglesii* subsp. *ornithopoda* 2.5m x 2.5m; 'Marion' 1m x 1m; *masonii* 0.5m x 0.5m; *maxwellii** 0.5m x 1m; *mercieri* MS; 'Merinda Gordon' 2–2.5m x 2m; 'Midas Touch'* 2m x 2m; 'Midas Touch seedling'; *miniata* 4m x 3m; 'Miss Muffet' 1.5m x 1.5m; 'Misty Pink'* 1.5m x 1.5m; *mollis* 2m x 2m; 'Molly' 1m x 1m; 'Molonglo' prostrate x 2m; *montis-cole* subsp. *brevistyla* 0.5m x 1.5m; 'Moonlight' 3–4m x 3m; *nana* subsp. *nana** groundcover–0.5m x 1m; 'Nectar Delight' 0.3m x

2–4m; 'Ned Kelly' 2m x 3m; *nematophylla* subsp. ?*nematophylla* 2–3m x 2–3m; 'New Blood' 0.25m x 1–1.5m; 'Ninderry Sunrise' 1m x 2m; *nivea* (=Scarlet King) 2m x 2m; *nudiflora** purple 0.5m x 3m; 'Old Gold' 0.3m x 1m; *oldei* 0.5m x 1.2m; *oleoides* 2.5m x 2m; 'Orange Marmalade' 2.5m x 3m; *oxyantha* subsp. *oxyantha* 1m x 1m; 'Paddy's Pink'* 1.5m x 1.5m; 'Peaches and Cream' 1.2m x 1.5m; *petrophiloides** 'broad leaf' 2m x 1.5m; *petrophiloides** white 2m x 2m; *petrophiloides** pink 2m x 1m; *petrophiloides* 'Wildfire Pink' 'dark pink' 2m x 1m; *pilosa* subsp. *pilosa* 2m x 1.5m; *pilosa* subsp. *redacta** low standard; *pimeleoides** 1.5m x 1.5m; *pinaster* 1m x 1m; 'Pink Ice'* 1–2m x 2m; 'Pink Lady' 0.5m x 1–2m; 'Pink Midget' 0.3m x 0.6m; 'Pink Nectar' 1.5m x 1.5m; 'Pink Pearl' 2m x 2m; 'Pink Pixie' 0.5m x 2m; *plurijuga* blue leaf form 0.75m x 2–3m; *plurijuga* small leaf form 0.75m x 1–2m; *polybractea* 0.5m x 1.5m; 'Poorinda Queen' 4m x 3m; 'Poorinda Royal Mantle' Prostrate x 3–4m; *prasina** 1–2m; *preissii* 1.2m x 1.2m; *prostrata* prostrate x 1–1.3m; *pteridifolia* prostrate–1.5m x 2m; *pteridifolia* NT form 5m tall; *quadricauda** 1–2m x 1m; *rara* 1m x 3m; 'Raspberry Cascade'* 1.5m x 1.5m; 'Red Delight' 2m x 2m; 'Red Hooks' 3m x 2m; 'Red Sunset' 1m x 2m; *repens* groundcover x 2m; *rhyolitica* subsp. *rhyolitica* 1.5m x 1.5m; *rigida* subsp. *rigida** 2–3m x 2–3m; *rivularis* 3m x 6m; *robusta*; 'Robyn Gordon' 2m x 2m; *rosmarinifolia* x *polybractea* 0.75m x 1m; *rosmarinifolia* lutea 2m x 1.5m; 'Rosy's Tramp' Tall standard; *rubicunda** 1.5m x 1.5m; 'Sandra Gordon' 4m x 2.5m; *scortechinii* subsp. *scortechinii** 0.2m x 1m; 'Semperflorens' 2m x 2m; *sericea* 1.5m x 1.5m; *sericea* 'Colo River' 1.5m x 1–2m; *sessilis* 2m x 2m; *singuliflora* 0.3m x 1m; *speciosa* 3m x 1m; 'Splendour' 2m x 1m; *stenomera** 1.5m x 1.5m; 'Strawberry Blonde' 2m x 1.5m; *subtiliflora** 1–2.5m x 2–3m; 'Sunkissed Waters' Tall standard; 'Sunset Bronze' 3m x 4m; 'Sunset Red' (mini Winpara Gem) 1m x 2m; 'Supa Dupa' 1m x 1m; 'Superb' 1.5m x 1.5m; 'Sylvia' 2m x 2m; *synapheae* subsp. *synapheae** Low standard; *synapheae* subsp. *synapheae* 1m x 1m; 'Tango' 1m x 2m; *tetragonoloba* 2.5m x 2.5m; *thelmanniana* low standard; 'Thorny Devil'* standard; *thyrsoides* subsp. ? 0.6m x 1m; 'Towera' 2m x 2m; *trachythea* 1.5m x 1.5m; *triloba* 1.5m x 2m; *umbellulata* subsp. *acerosa* 0.5m x 1.2m 'Velvet Carpet' groundcover x 2m; *venusta* 4m x 4m; *vestita* subsp. *vestita** 2m x 2m; *victoriae* subsp. *victoriae** 2m x 2m; *victoriae* subsp. *nivalis* 2m x 2m; *virgata* 1m; 'Wakiti Gem'* 1m x 1m; 'Wendy Sunshine'* standard; 'White Wings' 3m x 3m; *wickhamii* subsp. ?*aprica** 4m x 3m; *williamsonii* 1m x 2m; *wilsonii** 0.7m x 1m; 'Winpara Gem' 1.5m x 1.5m; 'Winpara Gold' 2m x 1m; 'Winter Delight' 0.3m x 1–2m; 'Wubin Wand'* 1.5m x 1.5m; 'Yamba Sunshine' 3m x 2m; *zygoloba** 1.5m x 2m.

Grevilleas and measuring tree trunk diameter

Sorry I can't get to many meetings but I can contribute to Show and Tell, although it would not be possible to bring some of this along to meetings. I may be repeating myself on some of this but please bear with me. I sent some of it to someone but I don't remember who.



Grevillea leucoptervis

The *Grevillea leucoptervis* photo was taken >20 years ago in our garden it was probably grafted but we no longer have it.



Grevillea banksii

The *G. banksii* stump photo was taken after recent wild weather. The wind and rain caused it to blow over from my neighbour's property into ours. It was about 6 metres high and as you can see 0.5 metres in diameter [measured with a 50 cm ruler]. If you are expert enough you might be able to estimate its age from the growth-rings.



Grevillea sp Wenlock River

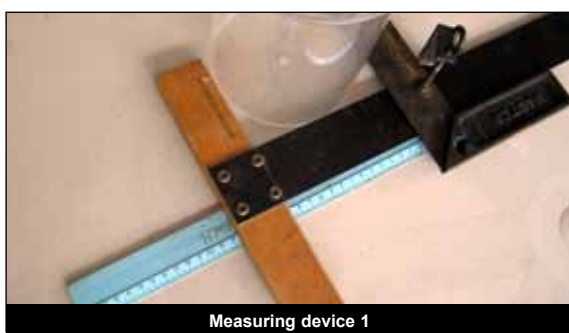
Another casualty of the wild weather was the *G.* sp. (Wenlock River). Fran Standing and Helen Howard responded to my offer of scion material and in due course we might hear about their results. Sorry to the two of you when you asked if I had prostrate *G. pteridifolia*. I said that I thought that I did but couldn't remember where it was. Well it was behind us and if we turned around we could have almost touched it. It is called a having senior moment. I realised immediately after you left. It is budding up now so I might be able to send an image or two later. By the way it is not very prostrate (about 1.5 metres tall) I find that this happens with other so called prostrate plants here e.g. *G. banksii* prostrate now 1.5 metres, *Banksia* 'Pigmy Possum' now >2 metres. Other *Banksias* are supposed to get to 0.5 metres and now 2 metres. I have three named varieties but lets get back to *Grevilleas*.



Grevillea Tango

continued >

Grevillea 'Tango' usually does not carry so many flowers (I would still not get excited about it) but it might be the result of all the rain that we had just prior to this photo. The device to measure the diameter of small trees shown is self explanatory and would not be useful to measure any tree trunk much larger than the container shown. I could make a similar device for larger diameters out of wood (in two sections) if I was enthusiastic enough. However It would be just as easy to measure the circumference at any one place by using a fabric or fibreglass tape measure then divide by 3.14 to get the average diameter. I think I have mentioned this in an earlier email.



Measuring device 1

I threw in the *Grevillea speciosa* as a point of interest. It is one of two forms here (other than hybrids) and I have had it for years. It flowers OK but the flowering period does not last long.



Measuring device 2



Grevillea speciosa

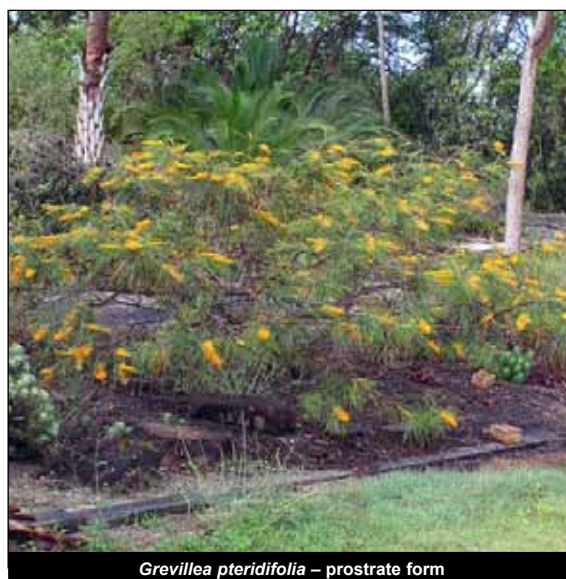
Merv Hodge

Grevillea pteridifolia prostrate

This is what can only be described at meetings and can only be represented by a specimen flower or two. It is a form of *Grevillea pteridifolia* supposed to be prostrate. I would describe it as a spreading shrub. I prefer it as it is anyway. I like it better than three different upright forms that I have.

Flowers have been opening over the past few weeks but the present numbers are about maximum. From here on they will go to seed, although more flowers will open for some time yet.

It was photographed on 14/05/13 in between showers. It does not receive any supplementary watering and wasn't affected by earlier hot dry periods. Of course the same goes for other plants seen in the photo, notably the Flannel Flower, *Macrozamia moorei*, a *Livistona* sp and *Corymbia setosa* (the trunks of the last two are all that is seen of them). It is amazing how well they grow in fairly shallow soil over the rock shelf. Of course the grass is now becoming a nuisance. Sorry I don't get along to meetings these days but I will try to stay in touch.



Grevillea pteridifolia – prostrate form

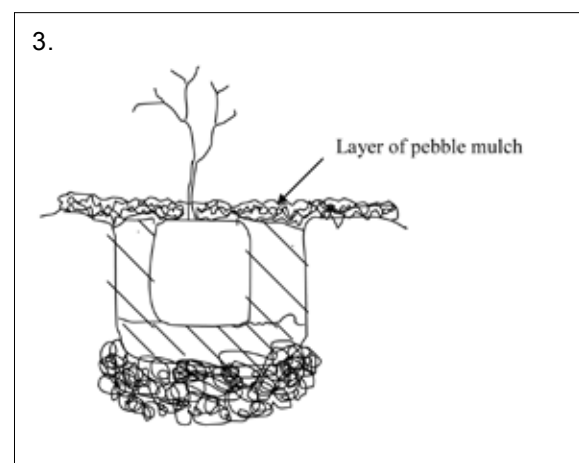
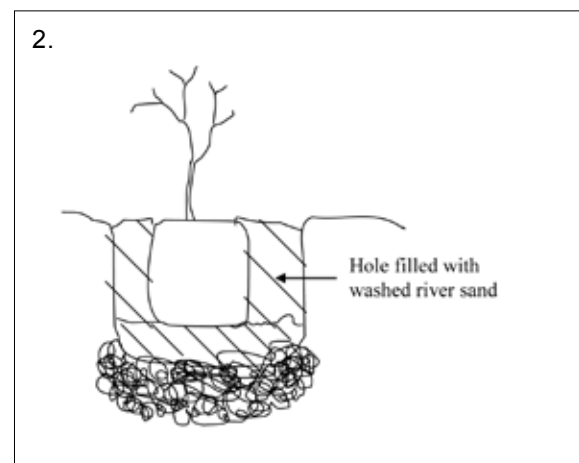
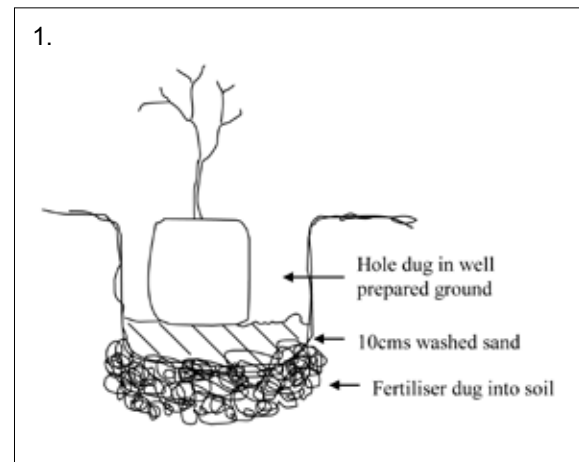
How to grow touchy Grevilleas

How many of you have tried to grow the really spectacular small grevilleas such as *Grevillea drummondii*, *G. alpina*, *G. fasciculata*, *G. saccata* and *G. leptobotrys* on their own roots, only to have them drop dead just as they are starting to take off? Most of these species are easy to strike from cuttings so it is such a shame they are not also easy to grow. After decades of trying built up beds, rockeries, special mixes and the like, I feel I have finally found a technique that works extremely well for me.

When I mixed coarse sand or gravel in the base of the planting hole, I found that there was a definite improvement in time of survival of the plant. However they eventually died. It was clear that, although the drainage was improved, the fine soil particles clogged up the gravel, allowing the roots to rot when saturated with water. I then thought about soil mixes for the same plants in pots, where it is essential to have a high level of air-filled-porosity for these touchy grevilleas. Air-filled-porosity is the amount of oxygen that is present in a mix after the soil is saturated with water. I needed to develop a planting technique that replicated this high air-filled-porosity in the garden.

So I then decided to create an area of PERFECT drainage around each touchy grevillea before planting. I did this by digging out the hole deeper and wider than usual, blending fertiliser into the base, and then placing around 10cm of coarse washed river sand into the base of the hole. The grevillea is then placed onto this, and the entire hole is then backfilled with more washed river sand, before mulching with either the same sand or gravel.

I started trialling this technique two years ago when we had record summer rains. Since then I have successfully grown a large range of grevillea species including a number of forms of *Grevillea leptobotrys*, *G. petrophiloides*, *G. obtecta* and many more. I have also tested the technique on many other touchy plants with similar success. I now have growing successfully in my garden notoriously difficult species such as *Lechenaultia biloba*, *L. formosa*, *Hibbertia stelleris*, *Crowea saligna*, *Pimelia spectabilis* and many others. I have also used this technique with great success in a number of commercial landscape jobs I have had.



continued >

So if you are keen to grow some of our most beautiful but touchy grevilleas I suggest you give this technique a try. Two words of warning however; the garden bed must be thoroughly prepared so the soil is free-draining and the holes do not form “sumps” when it rains. Also, as the plants are sitting in a large pool of coarse open sand, they will dry out rapidly prior to establishment, so will need regular watering

until they get their roots down through the gravel and into the subsoil. They are then usually able to grow on with little further watering needed. The amazing thing is that when heavy rains do again fall, as happened with us again last summer, the plants not only survive but thrive, as their main root-ball is in the gravel which maintains extremely high air-filled porosity, which is essential to prevent root rot.

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 monticola</i>
<i>Grevillea baileyana</i>	<i>Grevillea nana</i>
<i>Grevillea banksii alba</i> prostrate	ssp <i>abbreviata</i>
<i>Grevillea biternata</i>	<i>Grevillea newbeyi</i>
<i>Grevillea</i> <i>candelabroides</i>	<i>Grevillea nudiflora</i>
<i>Grevillea crithmifolia</i>	<i>Grevillea occidentalis</i>
<i>Grevillea decora</i>	<i>Grevillea paniculata</i>
<i>Grevillea decurrens</i>	<i>Grevillea paradoxa</i> (ltd)
<i>Grevillea eriobotrya</i>	<i>Grevillea polybotrya</i>
<i>Grevillea eriostachya</i>	<i>Grevillea pteridifolia</i>
<i>Grevillea excelsior</i>	<i>Grevillea pulchella</i>
<i>Grevillea floribunda</i>	<i>Grevillea refracta</i>
ex Coonabarabran	<i>Grevillea ramosissima</i>
<i>Grevillea glauca</i>	<i>Grevillea striata</i> (ltd)
<i>Grevillea johnsonii</i> (ltd)	<i>Grevillea superba</i>
<i>Grevillea juncifolia</i>	<i>Grevillea synapheae</i>
<i>Grevillea leucopteris</i>	<i>Grevillea teretifolia</i>
<i>Grevillea longistyla</i>	<i>Grevillea tetragonoloba</i>
<i>Grevillea magnifica</i>	<i>Grevillea triloba</i>
ssp <i>magnifica</i>	<i>Grevillea triternata</i>
<i>Grevillea manglesii</i>	<i>Grevillea vestita</i>
ssp <i>manglesii</i> (ltd)	<i>Grevillea wickamii</i>
	ssp <i>aprica</i>
	<i>Grevillea wilsonii</i>

Free + s.a.e.

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

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 – June 2013**Income**

Subscriptions	\$260.00
Interest	2.34
	<hr/>
	\$262.34

Expenditure

Newsletter publishing	\$270.00
Printing	233.31
Postage	56.35
Stationery	19.08
Bank fees	2.50
	<hr/>
	\$581.23

Amount in interest bearing deposit till 24/6/2013
\$28,396.94

Balance in current account 16/6/2013
\$823.84

Balance in business cheque account 16/6/2013
\$907.58

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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 30 September 2013, 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.

2012 2013

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.