Australian Native Plants Society (Australia) Inc

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Newsletter No. 91 – February 2012

GSG Vic Programme 2012

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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. 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.

GSG NSW Programme 2012

For more details contact Peter Olde 02 4659 6598.

Autumn Plant Fair on April 21–22

Special thanks to the Victorian chapter for this edition of the newsletter. Queensland members, please note deadlines on back page for the following newsletter.

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- A Short Report from 'Eremaea'

GSG SE QId Programme 2012

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

Sunday, 26 February

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

Рноме: (07) 4666 5118

SUBJECT: TBA

Once again Fran and Jim have offered overnight accommodation in their cabins free to anyone attending the meeting or alternatively the caravan and camping members are welcome to bring their own accommodation and camp near the main house. Anyone wanting to stay in the cabins or camp in the grounds is asked to contact Fran to book. Also remember although they live over the border in NSW our meeting is run on Queensland time.

Sunday, 29 April

VENUE:	Home of Chris & Ross Reddick
	212 Ney Rd Capalaba (UBD map 204 C8)
PHONE:	(07) 3390 1908
SUBJECT:	DNA presented by Kerry Rathie.

Sunday, 24 June

Venue:	Home of Noreen & Ray Baxter 20 Beaufort Crescent, Moggill 4070
PHONE:	(07) 3202 5008
Subject:	Members to bring their Spring 2011 photos from across Australia to show.

Sunday, 26 August

VENUE:	Home of Bev & Bill Weir
	151 Warriewood St, Chandler Qld

Рноме: (07) 3245 4537

SUBJECT: TBA

Sunday, 28 October to ? November

A *Grevillea* and Small Plants trip through SEQ and northern NSW, possibly Gibraltar Range area, is being planned by Jan Glazebrook & Dennis Cox.

SUBJECT: Grevilleas & Small Plants Growing within 200k of Brisbane

Sunday, 25 November

VENUE:	Home of Robyn Wieck
	Lot 4 Ajuga Court, Brookvale Park Oakey
PHONE:	(07) 4691 2940

Editoria

Hi to all,

The Newsletter index continues relentlessly due to the fantastic application and endurance of Tony Cavanagh and Bernie Shanahan. Tony has undertaken the large job of indexing all the species and much more and has reached Issue 70, not far to go in overall terms. Bernie has completed the index for all the authors and their papers as well as the taxa available for seed and cutting exchange and obituaries. The whole index will make the newsletter much easier to search and we will post it on the web as we begin to develop our website through the eternally patient Brian Walters. Their offers have freed me up to do more research. I recently spent two weeks in Melbourne studying their specimens of Grevillea alpina which I am revising with Neil Marriott and have written up a tentative paper, though there is much to do.

I recently received a \$5000 one-year nonsalaried grant through ABRS, the Australian Biological Resource Grant Program for part of my voluntary taxonomic work on the project 'Working towards a complete revision of the *Grevillea triloba* group (Proteaceae) with the description of c. 30 new species'. According to Dr. Marco Duretto at the NSW herbarium, this is the first grant of this type received by anyone at NSW. While it sounds good, actually I do not receive any money as the purpose of the money is to pay for professional illustrations. I do appreciate the confidence displayed in my efforts though.

Peter Olde

Time is closing on the Autumn Plant Fair and Open Garden to be held on April 21-22. This should be a very rewarding weekend as we have nurseries coming from Victoria (4), New South Wales (?10) and Queensland (1) and a large crowd is anticipated. Other nurseries may be added as time goes on. There should be a good supply of grafted and unusual plants as all the usual participants will be there, as well as a specialist fern nursery and a native orchid nursery. The Rare Plants Sale has been cancelled this year and I have advertised the event with all garden clubs in New South Wales and Canberra. Angus Stewart will be the headline. John Knight from Eurobodalla Bot Garden will also be there. Other speakers are being sounded out. Any assistance will be appreciated. The Study Group are not directly selling plants but have to manage the entry fee and parking. I will be conducting garden tours.

The impact of the ban on importation of all *Grevillea* products except seed into the U.S. has not yet been widely realised but I would be interested to hear from anyone who has been impacted by this decision. One other possibility is that the ban could be extended to many other countries, especially those still free of the borer. Perhaps research and a new protocol needs to be developed to handle this genus into the export market.

Thanks to the members of Victoria for producing this issue of the newsletter. Next one is Queensland.

Illawarra Grevillea Park OPEN DAYS 2012

April 28th, 29th, May 5th, 6th July 7th, 8th, 14th, 15th

September 1st, 2nd,8th, 9th

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

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Grevillea Study Group No. 91

Grevillea alpina Grevillea Crawl Spring 2011

As most members would know, Peter Olde and I are carrying out a full revision of the *Grevillea alpina* complex. For centuries this group of plants has both confused and challenged botanists and taxonomists, both overseas and here in Australia. *Grevillea alpestris* was separated off as a distinct species by Meisner, and other names were suggested by Mueller but never properly described. However these names have not been accepted in subsequent revisions. Don McGillivray separated out the 'Small-flowered form' as a taxon, but ultimately published his revision retaining this race within the species.

In 'The Grevillea Book' we separated the species complex into five major groupings, however subsequent study has shown there are more botanically distinct populations. As a result it has become essential that all populations are observed in the wild, data and specimens collected and photographs taken of habit, habitat, vegetation communities, soils, aspect and climate etc. so that the full picture of the species complex can be resolved once and for all. That will ultimately require DNA research as well as the microscopic taxonomy that Peter and I are doing. We have been in contact with Susan Hoebee from Latrobe University and she is keen to support this if the funding becomes available.

The Grevillea Study Group have had several field trips in previous years collecting *Grevillea alpina*, primarily in NE Victoria, with wonderful assistance over the years from Martin Rigg, John Gibbons, David Shiells, Max McDowall, Ian Evans and Geoff Roche. In particular, Ian and Geoff have found numerous new populations in central Victoria while Martin's were in NE Victoria. David Shiells has long been an enthusiastic and knowledgeable grower of wild populations

As a result of our research, and in order to observe and collect material from these new populations as well as all others, we organised a field trip for August last year. Peter was coming down from Sydney, picking up Dave Shiells on the way, before heading down to meet up with Ian Evans and Geoff Roche. At the same time, Wendy and I were coming across from Stawell and Max McDowall, Phil Hempel, Peter Smith and Bob O'Neill were coming up from Melbourne.



We met up with all except Max McDowall and Pete Smith at Castlemaine, before heading off to White Gum Track, Chewton. Here was our first surprise, as the *Grevillea alpina* growing here were not the typical 'Goldfields form' as expected around Castlemaine, but apparently part of the 'Southern Hills form'. These plants were open shrubs to 1.5m with massed orangered and pale yellow flowers with the typical large, drooping limb of this form and clearly depicted in the photo above.

From here we headed south through Elphinstone to Spence's Track, Drummond North. Here again were the 'Southern Hills form' but the plants were huge open and lanky specimens, 2-3m tall. And most plants had orange-red and cream flowers. This road-side was quite spectacular, with beautiful remnants of the original flora including massed displays of Bendigo Wax *Philotheca verrucosa* with showy red buds, and masses of the lovely *Platylobium prostratum*. We continued north and into the Fryers Range State Park and immediately came upon lovely plants of *Grevillea obtecta* growing with occasional *Grevillea alpina* on both sides of the road.

It was then time to head south to meet up at Russell Best's property at Riddell's Creek. Russell led us up his road to show us the lovely form of *Grevillea alpina* growing here. Despite some concerns that this may be another distinct form, we observed yet another attractive form of the 'Southern Hills form', this time only growing to around 1.2m with pale orange-pink and pale yellow flowers.

We then drove south and into Lerdederg State Park, where, following Russell's directions we walked down No 1 Firebreak Track till we came to a population of the 'Southern Hills form' of *Grevillea alpina*. These plants were typical of the form that occurs throughout the Park with almost round leaves and very hairy orange-red and yellow flowers. The area they were growing in was extremely beautiful, with massed displays of Rosy Heath-myrtle *Euryomyrtus ramosissimus*, *Persoonia chamaepitys*, *Banksia marginata*, *Dillwynia glaberrima* and much more.

From the Lerdederg we headed across country to Seymour where, just east of the town, on Telegraph Rd we again found the 'Southern Hills form' of *Grevillea alpina*. However these plants were quite open and lanky to 1.5m x 1.5m with pale yellow and cream, mustard and cream or occasional pale to mid red and cream flowers. They were here growing under Red Box *Eucalyptus polyanthemos* with a rich and varied shrub layer of acacias, several species of *Dianella* etc. and *Xanthorrhoea glauca*.

Then on to one of the most unusual of all the populations we collected, growing on Berry Lane at Old Longwood, just off the Hume Highway. This distinct population was brought to our attention by Geoff Roche. Wendy and I had collected it at the same time last year and it was good to get back and see it again. Plants are erect shrubs to 2m x 1m with dense foliage and massed dense clusters of beautiful soft yellow flowers, and growing on dry ridges under Red Stringybark Eucalyptus macrorhyncha. This form had us scratching our heads because superficially it looks like part of the 'Goldfields' race. However it has very dense and hairy buds similar to the 'Whroo' form but the flower buds are foliose (having leaves amongst the flowers) rather like the 'Northern Victorian form'.



Continuing on NE along the Hume Highway we next turned off at Euroa along the Strathbogie Rd. Just below Kelvin's View there is a lovely area of bushland with a good population of the typical Strathbogies form of the 'Northern Victorian form' of *Grevillea alpina*. These very showy plants were erect open shrubs to 1.5m with orange to bright red flowers with a yellow limb.



Strathbogie's form of the 'Northern Victorian form' of Grevillea alpina Photo © Neil Marriott

Our next port of call was Reef Hills State Park where we again found the 'Northern Victorian form' of *Grevillea alpina*. These plants were erect open shrubs to 0.6m with pale orange flowers with a yellow limb, and were quite localised, being only found in several small areas of the Park where they were growing on dry gravelly hillsides.

That night we booked in to a motel in Euroa where we all crowded into 2 rooms and had a most enjoyable meal and social evening at the local pub. No-one misbehaved or snored that evening so we all slept well, and awoke early the next morning eager to get out into the bush again.

We first headed for Samaria Rd Moorngag where we found large open shrubs of the 'Northern Victorian form'. These were growing 1.5-2m with massed pale orange flowers with a yellow limb. We then headed for Tatong where on Tiger Hill Rd to the east of the town we came upon lovely rounded shrubs to 1.5m of the 'Northern Victorian form' with very showy large heads of bright orange flowers with a yellow limb. Continuing on up this road we found a population of smaller shrubs 0.5-1m with the same showy flowers, but this time reproducing by suckers as well as by seed.

continued >

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We then drove to Carboor East where on Transmission Line Track we found dense rounded shrubs to 0.5m of the 'Northern Victorian form'. These were also reproducing by suckers as well as seed, and the plants located in the cleared site under the transmission lines were most attractive, with broadly ovate grey-green leaves and bright but dusky red flowers with a small yellow limb in long tight racemes.



Transmission Line Track form of the 'Northern Victorian form' of Grevillea alpina Photo © Neil Marriott

From here we continued heading north-east, and met up with Martin Rigg at Diffy Rd Everton East where we found extensive populations of the wonderful 'Small-flowered form' of *Grevillea alpina*. This form is so distinct and with so many unique characters that it may become a new species under our revision. The plants were upright open and weeping, growing 0.5-1.2m with massed bright red to orange flowers in prominent long clusters. There were many seedlings but no evidence of suckering with this population.



Diffy Rd Everton East form of "Small-flowered form" of Grevillea alpina Photo © Neil Marriott

Martin then took us on to Flagstaff Rd in Stanley State Forest where we were back into the 'Northern Victorian form' of *Grevillea alpina*. This population was growing on a steep north-facing slope of metamorphosed mudstone. Plants were only 0.5-1m tall with very showy heads of bright red to orange-red flowers with a yellow limb.

On to Beechworth, where on Old Wooragee Rd we were again back in the territory of the 'Small-flowered form' - this time as wonderful suckering plants forming dense low mounds 0.4 x 1-1.5m wide. The dull red flowers were in long inflorescences, and the plants were growing amongst Callitris endlicherii with a rich variety of other shrubs including Acacia buxifolia and Calytrix tetragona. Nearby we came upon a most unusual individual plant of Grevillea alpina 'Small-flowered form' that had clearly hybridised with Grevillea polybractea a plant that to the best of our knowledge does not occur in this region of the state!! However looking at a map of Victoria it is just over 100 kms from here to the Walwa/ Corryong area where Grevillea polybractea grows naturally. This is close enough for pollen to be spread by migrating honeyeaters, or is there a new population of Grevillea polybractea still to be discovered in the Beechworth district?

We then headed to the other side of Beechworth where on Malakoff Rd we again found a good population of the same low suckering form of the 'Small-flowered form' of *Grevillea alpina*.

From here Wendy and I had to head off home, this time via Heathcote/Graytown National Park. After driving for many kilometres through the Park finding nothing but thousands of seedlings of *Grevillea alpina*, we finally came upon a small flowering population of what appeared to be an unusual form of the 'Goldfields form' of *Grevillea alpina*. The plants were still only young, but were strongly arching with broad grey-green leaves and hairy green and cream or yellow-green and cream flowers in small loose pendant heads. Flower buds were particularly hairy, with long white hairs.



Heathcote/Graytown National Park form of Grevillea alpina Photo © Neil Marriott

Further on along Boundary Rd we came upon similar shrubs, but this time with dull red and cream flowers. These were growing with massed flowering Bendigo Wax *Philotheca verrucosa*.

From here we continued on to the nearby Costerfield State Forest where David Shiells had previously discovered a most distinct form of *Grevillea alpina*. These were abundant on the corner of Reef Rd and the South Costerfield-Graytown Rd, and scattered infrequently through the rest of the forest. Plants were low rounded shrubs 0.3-0.5m x 1m with unusual narrow linear silver leaves and bright red flowers in small pendant clusters. They were growing under Red Ironbark *Euc tricarpa* in hard stony loam often with low suckering colonies of *Acacia acinacea*.



Not far from this site is another population of Grevillea alpina that I was struggling to fit into the big picture. This was on the nearby Mt Ida, where Max McDowall had taken us on a Grevillea Crawl many years earlier. We approached the mountain from the east -a most difficult thing to do, but almost as soon as we got onto the main ridge of the mountain we found plants of the Grevillea alpina. These were abundant along the ridge, but nowhere else and were again, mostly small seedlings. Eventually we found several mature plants to 1m with most attractive and prominent bright orange and bright yellow flowers in large terminal pendant heads. This is a most distinct form, most like the 'Southern Hills form' but differing in a number of significant ways.



Grevillea alpina Mt Ida Photo © Neil Marriott

From Mt Ida we headed south to the final form of Grevillea alpina -one that we clearly got wrong in 'The Grevillea Book'. We had incorrectly diagnosed the Tooborac form of Grevillea alpina as being part of the 'Small Flower form', however Peter indicated that this is incorrect and it may well be yet again, another distinct form. Plants are fairly widespread in the Tooborac State Forest and nearby bushland, and we found a good population growing on the Tooborac-Seymour Rd. These plants are truly beautiful, being rounded bushy shrubs to 0.6m with profuse bright red or orange flowers with an orange limb. There was no evidence of suckering and seedlings were frequent. After photographs and the collecting of specimens for the herbarium we were on the road home with a far more satisfied with our knowledge of this fascinating species complex.

Special thanks must go to Ian Evans, Martin Rigg, Geoff Roche and David Shiells for hunting out many of these new populations for us to visit and examine for our research. Without their help we would be much poorer –isn't this what study groups are all about!!



Tooborac form of Grevillea alpina Photo © Neil Marriott

Max McDowall

Pronunciation of Grevillea Names Part 5 - concluding article

The pronunciation guides given in the individual articles for each species in The Grevillea Book are **highly inconsistent** – some conform to the correct Latin pronunciation and others do not. Those pronunciations listed in this series of articles as not conforming to the Latin rules should be amended accordingly- optionally for those names marked with an asterisk.

Practice aloud the correct pronunciations of these Latin names. They will soon come naturally, and do not be afraid to use them. Since writing these articles I have been gratified to hear more people using correct pronunciations where they formerly used various anglicisations.

Complete list of articles on Latin Pronunciation in these Newsletters --: **79** (General article), **82** (*Grevillea* Names Part 1) , **83** (Part 2) **85** (Part 3), **88** (Part 4) **91** (Part 5).

Pronunciation of Latin Consonants in accordance with the reformed academic system

Consonants *c* and *g*:

Before the vowels **e**, **i**, **y**, and diphthongs **ae** and **oe**, the letter **c** alone or in combinations **sc** and **cc** is always pronounced hard as **k** (never soft as **s**), while the letter **g** is always hard as in **g**revillea (never soft as in **g**ender)

Guides conforming: *apiciloba, cagiana* (after Cag, a nickname for C. A. Gardner), *oncogyne* and *quercifolia* (from the generic name, *Quercus*).

Guides not conforming: acacioides*, acerata, calcicola, celata, centristigma, ceratocarpa, ceratophylla, cinerea, cirrhosa, cirsiifolia, coccinea, concinna, coriacea*, evanescens, cynanchicarpa, cyranostigma, ericifolia, erinacea*, evanescens, excelsior, fasciculata, fastigiata, fulgens, glabrescens, glaucina, gracilis*, ilicifolia, juncifolia, lanigera, occidentalis*, olivacea*, pauciflora, polyacida, rubiginosa, salicifolia, sphacelata, uncinulata.

*Contrary to popular belief, there is no general rule in English for hard and soft **g**.

However there are few exceptions in English for the \mathbf{c} rule, and many anglophone users may find the Latin rule rather counter-intuitive, especially in names like those marked with an asterisk* where there are obvious analogies with cognate English words. In such cases, the alternative Anglicised pronunciation may be used instead, if desired..

Latin and Latinised Greek *ch* and Italian *ch* are always hard as in numerous words from the Greek like chemist, architect, chrysalis, *Chorizema*, *Chrysocephalum etc.*, and usually pronounced like k as in the English words listed.

Guides conforming: batrachioides, brachystylis, brachystachya, christinae, chrysophaea, dolichopoda, endlicheriana (German, with a soft gutteral **ch**) eriostachya, pachylostyla, pulchella, stenostachya, trachytheca.

Guide not conforming: scortechinii (Italian).

Note: There is no justification or support in the guides for the mispronunciations of **ch** as '**sh**' sometimes heard in '*eriostasha*', *stenostasha*' and '*Shamelaucium*' or '*shamaepitys*' and '*shamaepeuce*' (in *Persoonia*), possibly through a wrongly perceived analogy with the French **ch** in machine, chauvinist or *Lechenaultia*.

In Latin words, \mathbf{j} (a European equivalent of Latin \mathbf{i} when used before another vowel) is pronounced like the English semivowel \mathbf{y} as in yes.

Examples: *juniperina*, juncifolia* ('yunkifolia'), similarly *iaspicula* ('yaspicula), based on the place name Wee Jaspar, from the Latin *iaspar*.

The daggy pronunciation 'Eye-ass-pick-you-la' given in the Grevillea Book, totally disregards the etymology of the word, and is an ugly example of such guides.

All pronunciation systems stipulate that Latin **s** (e.g. in the suffixes **-osa**, **-oides** and for **s** final) should **not** be pronounced as **z**.

Guides conforming: *(umbellulata subsp.)* acerosa, amplexans, (arenaria subsp.) candicans, asteriscosa, bracteosa, candelabroides, canescens, decipiens, dryandroides, fistulosa, flexuosa, formosa, globosa, granulosa, hakeoides, humifusa, leptobotrys, mimosoides, mysodes, prasina, papillosa, rhizomatosa, (rigida subsp.) distans, speciosa, spinosa.

Guides not conforming (given as 'z'): *exposita*, *fulgens, (haplantha subsp.) recedens, mysodes,*

oleoides, pimeleoides, repens, thyrsoides, (vestita subsp.) isopogoides.

Latin **x** should be pronounced '**ks**' as in most examples in The Grevillea Book and not as '**gz**' or '**z**'. Guide not conforming: *xiphoidea*.

There are **no silent consonants** in Latin and Latinised Greek words. All should be pronounced even if some initial combinations are not found in English words. This includes p in front of a consonant:

Guides not conforming (p given as silent): psilantha, (pauciflora subsp.) psilophylla, pteridifolia, pterosperma.

Personal epithets from European surnames

It is usually appropriate to pronounce generic and species names based on foreign surnames (specific epithets) similarly to the original names of whatever nationality (European w pronounced like the English v, and g is hard (except for French and Italian surnames). However this could be varied to accord with the usage of those individuals who were born in or settled in England or Australia, such as: *dryandri**, *dryandroides**, *lullfitzii**, *molyneuxii*, *steiglitziana**, *wittweri**.

Stress in Personal Epithets: It is more pleasing to the ear to hear the original pronunciation and stress of the original surname in the specific epithet as given for *johnsonii, manglesii*, *wilsonii*, than to follow the strict application of the antepenultimate rule as given for *wilsonii* – say will-so-nee-ee not 'will-sow-nee-eye'.

For a more extensive discussion of these two issues see the last paragraphs of my general article in Newsletter No 79.

Direct deposits can be made into the Grevillea Study Group account

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

Please notifiy the Treasurer of transfer by email (bruce.moffatt@tpg.com.au)

or by post to Grevillea Study Group, 32 Blanche St Oatley, NSW 2223

Tony Cavanagh, Ocean Grove, Vic

Grevillea "Woodlands" and Grevillea "Sunrise"

I am currently involved in a project for Peter of indexing past issues of the Study Group Newsletter. It is slow going but I do get to read all the Newsletters which I guess very few others have done. In my files I found some old correspondence with A.C.R.A. (Australian Cultivar Registration Authority) in the early 1980s regarding my attempt to register my cultivar Grevillea "Woodlands" and later correspondence (1991) from David Shiells of the (then) Wakiti Nursery, Shepparton, regarding comparison between his registered cultivar "Sunrise" and "Woodlands". This brought back many memories and I began to look more closely at the two to see just what differences there were and also to investigate the parentage of both, something I had not considered much in the past. I might add that this interest was also spurred on by the fact the "Sunrise" seems to be available in Queensland although I wasn't able to find a plant this year. We saw it in the Grevillea Study Group/ APS plantation at Myall Park in April this year and previously in a winning garden in the Toowoomba Carnival of Flowers in September 2010. Two years ago I actually had bought a plant in a nursery in Goondawindi but this died after six months so I still am not able to make garden comparisons of these two remarkably similar cultivars of, as we shall see, vastly different parentage.



Grevillea "Woodlands" came up as a seedling in our garden in Woodlands Drive, Ocean Grove, hence the name. We have always believed that the parents were *G. bipinnatifida* (seemingly a prolific polymorphic plant) and the orangeyellow sprawling form of *G. juniperina*, which were growing on either side of the seedling. The original plant lived about 10 years during which

time we propagated it by cuttings and attempted to register it with A.C.R.A. in November 1983. However, as we were not intending to release it commercially, the application eventually lapsed. It was never a dense shrub, but less than 1 m high and sprawling to 1.5 to 2m spread. The leaves were all divided into five segments ending in a point, a legacy from its parent G. bipinnatifida, and a pleasing grey-green due to fine tomentose hairs. The flower heads/racemes could be up to 5cm sometimes smaller, and are terminal. The perianth is a dark pink-orange (refer photograph) with an all-pink style and pale vellow pollen presenter (?style end). In younger flowers, the perianth limb may be a pale orange, almost yellow but turns pink as the flowers age. Flowering time is late winter to spring.



Grevillea woodlands

It is my understanding that Grevillea "Sunrise" (also called "Wakiti Sunrise" but "Sunrise" is its registered name) was selected seedling from the Wakiti Nursery around 1981-2, with parents of G. bipinnatifida (again) and G. "Clearview Robin" (a hybrid between G. lanigera and G. lavandulacea). It was registered in 1990. Some sources give the second parent as G. "Poorinda illumina" but as Peter explained in the June 2011 Newsletter, there is dispute about the origins of both and whether they really are two different hybrids. To complicate matters even further, Wrigley and Fagg in Banksias Waratahs & Grevilleas p.229 claim that "Clearview Robin" was a manipulated hybrid between G. lanigera and G. lavandulacea and that another seedling from this cross was named G. "Crosbie Morrison" so the gene pool could be very mixed.

What is so surprising to me is why our two hybrids are so similar. David and I have corresponded and been in contact over the years about the two plants and when David first saw "Woodlands", he too was surprised at how similar they were. Yet while they both have G. bipinnatifida as one parent, the second parents are very different and it is difficult to understand the outcome. The A.C.R.A. description of G. "Sunrise" does mention the similarity to "Woodlands" and the photograph shows the flowers to be similar in size and shape, but with the perianth pale greenyellow aging to pale apricot, style pale green with darker green pollen presenter (?style end). The plant appears to be somewhat dense and bushier with mainly divided leaves although some times they may be entire; they are greener than the grey-green of "Woodlands". Flowering is sporadic from spring to autumn with the main flowering in autumn.

My only other comment is about the pale flower colour of *G*. "Sunrise". With all parents generally having red to pink flowers, it is surprising that "Sunrise" flowers are paler than those of *G*. "Woodlands" in which one parent was yellow. Then again, there is no sign of the needle-like foliage of that parent, *G. juniperina*, in

"Woodlands", all of which leads me to conclude that without genetic testing, we may never know the true background of these two remarkably similar hybrids from such different parents.

Note. I think that the similarity has caused confusion in the nursery trade as well. One Queensland wholesale nursery has pictures on the internet of what it claims is G. "Sunrise" and the deep colour of the flowers and other features lead me to believe that it is fact G. "Woodlands". This is shown in the following photograph.



Peter Olde

Comment on Grevillea "Woodlands" vs Grevillea "Sunrise"

Both hybrids have an assumed putative parent which could be wrong in both or one case. It seems fairly obvious that the parents of both cultivars are the same, one of them being *G*. *bipinnatifida*, the second open to question. Genetic imprinting offers considerable potential in identifying the second parent, although it could be a hybrid and therefore less clear. In the forthcoming Grevillea Cultivar book, I have distinguished the two almost identical cultivars in the following terms: - *Grevillea* 'Woodlands' differs from *G*. 'Sunrise' in its shorter leaves with generally shorter, narrower leaf lobes, its shorter (to 3 cm long), denser racemes that bear a red glandular indumentum which is especially visible on buds. You can clearly see the buds at left of the main floral raceme in the photo below. The colour of the flowers of *G*. 'Sunrise' at Myall Park is an early colour phase. The flower colour deepens at and after anthesis in my plants and the photo from the web is correct. The bud indumentum is white (not illustrated here). *Grevillea* 'Woodlands' is the most beautiful and intensely coloured of the two but is much less hardy here at Oakdale.

New Grevillea has been discovered in the Great Victoria Desert

Details of this Grevillea currently referred to as the Ilkurlka grevillea have been circulating for a few months, mainly from a member of the Eremophila Study Group that was part of the survey team and saw it. However since it wasn't an "Eremophila" no material was collected. Since then other keen grevillea people, after hearing of the plant, have driven the three days it takes to get to Ilkurlka roadhouse via a very rough Anne Beadell Highway only to be told by a community leader that they would not be shown the grevillea or even be told where the grevillea was growing. After pleading the case of having driven so far on such bad roads surly they could be show at least one plant. I think the "keeper" may have suggested or thought, after shrugging his shoulders that they can just turn around and drive the three days back again. I can imagine the attitude of the grevillea people as they drove all that way home empty handed.

The grevillea is prostrate and looks like a strange *Grevillea eriostachya* which grows about 250km north of Ilkurlka. The following are extracts from the WA Dept of Conservation and Environment March 2011 newsletter.

The species Grevillea ilkurlka ms was collected as part of a survey in the Ilkurlka area, a relatively unknown region about 150 kilometres west of the WA border. The survey was carried out by DEC and the Spinifex People, in partnership with the WA Museum. Adelaide Zoo and Museum Victoria.

DEC Conservation Officer Jennifer Jackson said "This survey demonstrates that desert flora in WA is extremely diverse, yet we know so little about what is actually out there in the western desert, and no doubt there are many more new species yet to be discovered," she said. *"It has helped us establish an inventory of the biological assets of the area, which is still one of the most pristine and undisturbed regions in Australia."*

Phil Hempel

Grevillea ilkurlka ms is a prostrate shrub with large golden flowers, and was found growing in several populations on sand dunes within a five-kilometre radius, south of the Ilkurlka Roadhouse.

"Grevillea ilkurlka ms is currently being formally described at the WA Herbarium, and has been listed as priority one flora, which means it is in urgent need of further survey," Jennifer said.

A further two species are currently being studied by botanists at the WA Herbarium and are also expected to be new species. (I am not sure if this is referring to grevilleas or other plants)

It is even more interesting for me as I was it the area and at the Ilkurlka roadhouse in early August this year and on reflection I did get a strange response when I mentioned I was looking at native plants. It seems the location is going to be kept a secret by all in the area. I know how I would have felt if after travelling three days from Coober Pedy I was told to go back. The area is botanically rich as I found several unusual Eremophilas, one of which still hasn't been clearly identified; I also found some unusual *Eucalyptus youngiana, Euc socialis* and *Hakea francisiana*.





US bans importation of Grevillea

While the importation of fruits and vegetables into the U.S. is based on a "prohibited unless found safe" approach, regulation of horticultural plants has to date been largely based on an "enterable unless found unsafe" approach. This approach essentially assumes there is no risk associated with the unknown. This opened up a very precarious situation considering that introduced plants for planting may harbour quarantine pests for months or years and the destinations of imported plants for planting, such as nurseries, orchards, gardens, and greenhouses, are favorable environments for plant growth and pest development in general, thus increasing the risk that a plant pest or pest plant could become established.

Anoplophora glabripennis (ALHB) is a native pest in China and other nearby Pacific Rim countries. It has already been introduced to several countries worldwide and was first officially recorded in the U.S. in April 1999 when a single beetle was found in a nurserv greenhouse in Athens, Georgia on bonsai trees imported from China. There is evidence of its arrival earlier, possibly around 1996, but this species has entrenched itself already in parts of the U.S, including Chicago, Illinois and the New York City area. Quarantine programs have been setup to combat this pest. It now threatens the Arnold Arboretum. It is an insect pest known to attack at least 18 species of hardwood trees including maple, birch, poplar, willow, elm and ash. Twelve years after the beetle was discovered in Brooklyn, a quarantine zone has expanded to 140 square miles. The area is determined by drawing a 1.5-mile radius around infested trees. Trees and products from trees such as branches cannot be taken out of the quarantine area. Instead, they must be chipped and the chips burned. Infested trees and potential host trees nearby also must be chipped and burned because available chemicals cannot eradicate the threat of the beetle.

The citrus long-horn beetle Anoplophora chinensis Forster (CLHB) is native to eastern China, Japan, Vietnam, Korea and many other Asian countries where it is regarded as a major pest borer of a large variety of mainly softwood species including citrus, apple, Poplars and Willows. It has spread to Europe and Canada mainly in wooden packing cases and was first intercepted in 2001 in a Washington nursery on a shipment of bonsai maple trees from Korea. Three beetles were captured at the nursery, including a mated female ready to lay eggs, but when the bonsai trees were dissected, eight larvae exit tunnels were found, indicating that five more might have escaped into the surrounding community. Those five could lead to thousands of others because females lay 200 eggs at a time beneath the bark of trees. An area up to 1 km from the infestation was immediately quarantined. About 1,000 trees were destroyed, and surrounding trees were injected with insecticide.

CLHB and AHLB are of particular concern because they have no natural enemies and attack apparently healthy trees, threatening orchards, greenbelts, forests and urban landscapes. Most of the damage is caused by the larvae, which feed and tunnel within the woody portion of the host. The irregular tunnels caused larval burrowing to interfere with the flow of xylem and phloem, and rapid tree decline is a consequence. Larval feeding wounds also increase the host's susceptibility to secondary pathogens. Adults may be seen feeding on the leaves, petioles, and bark, but do not cause serious damage. One host of principal concern is *Casuarina equisetifolia*.

The USDA (Dept of Agriculture) has announced the establishment of a new category in their regulations governing the importation of nursery stock. This new regulation, to be known as Plants for Planting Not Authorized for Importations Pending Pest Risk Analysis or NAPPRA will have a major impact on the genus *Grevillea*, all taxa of which are implicated as hosts of the guarantine pest, CLHB.

Under the new NAPPRA rules, USDA-APHIS has published a list of plants that it considers to be quarantine pests (41 taxa in total), or hosts of quarantine pests (107 taxa that are hosts of 13 quarantine pests). There are two key elements of the new NAPPRA list of plants:

- Plants as the potential pathway for movement of quarantine pests
- The origin of these plants.

continued >

Peter Olde

It is the intent of this new regulation to prohibit the entry of all plants on the list until such time as a Pest Risk Assessment (PRA) is completed by the USDA. **Completion of a PRA will not be automatic and must first be requested.**

Verification of origin as part of CFIA phytosanitary export procedures is about to get much more complicated.

Not only will origin have to be verified as is currently the case, but the origins will have to be compared to the NAPPRA list to determine if plants will ever be eligible for export to the US. During the NAPPRA implementation period, the date that plants entered via Canada for example is also critical, as certain plants from specific origins imported after NAPPRA goes into effect may never be eligible for export to the US. Plants can never be "from" Canada if they were originally grown in a country where they would be prohibited entry into the US. Exporters will have to demonstrate to CFIA that the plants presented for export meet USDA NAPPRA requirements at the time the plants entered Canada.

The genus Anoplophora was revised by Lingafelter & Hoebeke in 2002. Although no species are native to Australia and have not been recorded here (amazingly) Grevillea robusta was cited on P. 238 as a host species of CLHB, precipitating the recent ban on all imported plants, cut flowers and foliage but not seed of Grevillea from November 2011. The precise data have not been seen by the author, but agroforestry is assumed to be the source of the reference, given that G. robusta is widely grown for this purpose in many countries throughout the world. A list implementing changes to regulations issued in 2009 did not contain Grevillea. In July 2011 the U.S. Department of Agriculture introduced new regulations banning 107 species that might act as host plants for Quarantine pests. The NAPPRA list bans all Acacia, Casuarina and Grevillea for the risk of hosting Anoplophora chinensis except that the first two genera can be imported through Canada. Grevillea is totally banned from whatever source. On the second list of 41 candidates qualifying as Quarantine Pest Plants, three hakeas Hakea gibbosa, H. salicifolia and H. sericea have been listed as likely invasive pest plants. It is interesting that although Grevillea robusta is listed as a Globally Invasive Species by the Invasive Species Specialist Group (ISSG) of the IUCN

Species Survival Commission, it is not banned in the U.S. on these grounds whereas the three hakeas not on this data base are banned by the U.S. I seem to remember a time when *Grevillea pteridifolia* was banned in the U.S. at one stage on these grounds.

The decision is disastrous for Australian cut flower exporters and ornamental horticulture, especially those developing cultivars and hybrids in the hope of cracking the U.S. market. It undermines and threatens breeding programmes several years in the making. Nonetheless the decision is understandable. Misguided horticultural and animal introductions have led to the almost complete annihilation of native flora over vast areas of Australia and even with tight quarantine laws we now have disease introductions such as Myrtle Rust (see separate article) likely to do even more damage.

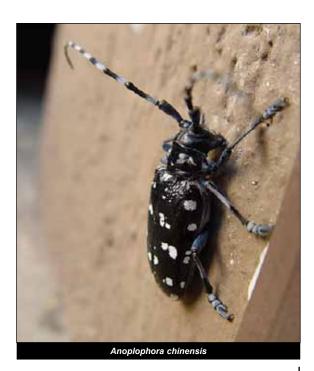
References:

http://www.regulations.gov/#!documentDetail;D=APH IS-2011-0072-0002

Pdf downloaded 17 Feb 2012.

Hammel. L (2008) "Beetles found in more trees". *Worcester Telegram & Gazette*. 2008-10-29. Retrieved 15 Feb 2011.

Lingafelter, S.W., E. R. Hoebeke. 2002. Revision of *Anoplophora* (Coleoptera: Cerambycidae). The Entomological Society of Washington, Washington, DC, p 238.



Grevillea news



In Australia, the Longicorn beetle *Phoracantha semipunctata* is a well-known native pest of *Eucalyptus* and several different species attack and *Acacia*, *Penthea sp.*, *Ancita crocogaster* and others.

Peter Olde





February 2012

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Saturday 21 & Sunday 22 April 2012 9 am to 4pm

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One Year On

Just over a year has elapsed since we downsized by moving from Katandra Gardens at Wandin East to an established, almost flat, 1 acre property at Narre Warren South. There is a long way yet before the garden is fully re-established, but I would far rather be where we are now than be back as when we first started here.

Take out a tennis court, lawns, buildings and sealed areas, we would have just over half an acre to play with. The significant area of vegetable garden and fruit trees is progressing well above our expectations, while other areas have had plants retained, primarily of non native species. Approximately 900 native pants were initially planted out last year, of which maybe 300 have since died, mainly due to wet feet during the winter and spring. A burst of hot summer weather saw plants die quickly, I believe because of an inadequate, damaged root system due to the earlier wet conditions. In essence, we now know what does and does not grow where.

A 10m³ load of soil, maybe a bit more, is due in soon and will be largely used to further raise a rear garden bed, otherwise most of the beds will stay largely as they are currently formed. A number of smaller eucalypts, other large shrubs and small trees will be introduced to help lower water levels in the longer term. Two drainage runs have also been installed. In the meantime we will follow the directions pointed out by the survivors, then gradually widen our range of plants as micro climates develop in the maturing garden.

Plant groups that have done well include Acacia cognata, prostantheras, callistemons, Correa lawrenciana, leptospermums, blandfordias, brachychitons, doryanthes and a macadamia. Surprisingly, we have had a number of both grafted and cutting grown eremophilas going well, while correas have been a disaster. Grevilleas are a mixed bag, some died, some survived, some are doing well, some are thriving, influenced by the location of planting and the plants' capabilities. Our plants include; *G. lanigera*, 'Gold Rush', 'Red Sunset', 'Robyn Gordon', 'Fireworks', 'Peaches and Cream', 'Bonnie Prince Charlie', 'Moonlight', *G. robusta*

and *G. rhyolitica*. Two of the most striking plants are *G.* 'Sylvia' and '*G.* 'Bulli Beauty', both growing very well; this is not a great botanical collection, but it is a start. In the shorter term other hardier forms and grafted plants will be added as they come to hand, some of the other desired, more testing plants will have to wait till conditions moderate in their favour.

Our bird list is 22 species, of which the red rumped parrot was new to us, and there are no signs of lizards nor frogs; we can only wait till the garden matures to hopefully see much improvement there. We have a starting point, now the challenge is to grow even bigger pumpkins, await the macadamia to crop and to grow Grevillea magnifica from a cutting - it will happen. Upon downsizing, one must look and drive forwards, merely reflecting behind for reference points and guidance. Opportunities must be sought, indeed created, and then getting out of bed each morning is a desire, not a necessity forced upon you. We welcome any Grevillea addict to drop in if you are passing this way, your infectious wisdom would be graciously absorbed.

See link <u>http://www.heart-reflections.com/</u> <u>Hillsmeade.html</u> for pictures of our property and plants.

* Many members will remember with pleasure their visits to the beautiful Katandra Gardens with its extensive collections of correas and acacias -- especially that in 2006, when Bob and Dot hosted the visit of participants in the Fred Rogers Biennial Seminar on Acacias. Bob was a participant in two GSG Field Trips – to the Goldfields around Maryborough organised by Geoff Roche in August 2008 and with the Grevillea Alpina Interest Group from Melbourne to Beechworth and Yackandandah in August 2011 (see report in this issue by Neil Marriott). Martin Rigg & Diana Leggart, Yackandandah, NE Victoria

A Short Report from 'Eremaea'

A primary subject over the spring, summer and early autumn of 2010/11 was lots of rain and humidity, and the subsequent impact on the 120 or so genus in our garden.

Can we see any trends in plant behaviour?

Plenty of healthy growth, with expectations of high growth next spring and summer. Probably less flowering eg Eremophilas with less heat and wetter summer conditions and plenty of deaths approx. 35-40 over the 6-8 months with a broad selection of genus affected by too much rain.

Grevilleas in general seemed fairly robust to the humidity with losses limited to 3-4 plants from 80 species and 20 cultivars. This is about normal as plants come and go from the garden as age and conditions change. As expected, WA Banksias and Isopogons were most affected and are likely to be an impossible long term option here but a novelty we will persist with!

Two surprises in the garden are *Grevillea*"Simplex" with the 'yummy' chocolate/vanilla scent now noticeable and our first bower built by the Satin Bower Bird.

We have been visiting some surrounding localities of *Grevillea alpina* in the past few weeks to observe their recovery status, now after a second autumn/winter of good soil moisture.

For example, the Chiltern population just south of the Hume Freeway has revegetated heavily and are in masses of bud, just starting to flower (early autumn) while the Beechworth (Malakoff Road) form are later in bud and flower. Our visits will continue over the coming months.

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.

Grevillea aurea Grevillea baileyana Grevillea candelabroides Grevillea drummondii Grevillea decora Grevillea decurrens Grevillea decurrens Grevillea eriostachya Grevillea glauca Grevillea johnsonii Grevillea leucopteris Grevillea leucopteris Grevillea magnifica Grevillea magnifica Ssp magnifica	Grevillea newbeyi Grevillea nudiflora Grevillea occidentalis Grevillea paniculata Grevillea paniculata Grevillea pteridifolia Grevillea pulchella Grevillea refracta Grevillea refracta Grevillea stenobotrya Grevillea superba Grevillea teretifolia Grevillea teretifolia Grevillea tertagonoloba Grevillea triloba
Grevillea magnifica	Grevillea triloba
Grevillea monticola Grevillea nana ssp abbreviatta	Grevillea wickamii ssp aprica Grevillea wilsonii

Free + s.a.e.

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

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.

<u>Seed bank</u>

Financial Report - February 2012

Income	
Subscriptions	\$280.00
Interest	44.11
Donations	15.00
Seeds	20.00
	\$339.11
Expenditure	
Newsletter publishing	\$240.00
Printing	192.00
Postage (newsletter)	172.10
Postage (brochure)	18.10
Bank fees	2.50
	\$624.70

Amount in interest bearing deposit till 29/2/2012 **\$27,189.56**

Balance in current account 1/2/2012

\$3049.15

Balance in business cheque account 1/2/2012 **\$2,115.52**

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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: greville as-unsubscribe@yahoo.com

List owner: grevilleas-owner@yahoo.com

URL to this page: http://groups.yahoo.com/group/ grevilleas

Online Contact

 President's email address <u>peter.olde@exemail.com.au</u>
The email group grevilleas@yahoogroups.com
URL for Grevillea Study Group website http://asgap.org.au/grevSG/index.html

Deadline for articles for the next newsletter is 31 May 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.

2011 2012



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.

February 2012