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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.

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

Inside this issue:

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- Grevillea huegelii special appeal

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.

Wed, 7 November – Sat, 10 November

A joint excursion through SEQ & northern NSW. GSG members planning to attend are asked to contact Jan Glazebrook & Dennis Cox on ph (07) 5546 8590 for full details closer to this event. See also page 4 for more details.

Sunday, 25 November

VENUE: Home of Robyn Wieck Lot 4 Ajuga Court, Brookvale Park Oakey PHONE: (07) 4691 2940 SUBJECT: A tour through Robyn's garden

Sunday, 24 February 2013

 VENUE:
 10 Patrick St, Lowood, Qld

 PHONE:
 (07) 5426 1690

 SUBJECT:
 TBA

OPEN DAYS 2013

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

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

In search of Grevillea beadleana

Following a serendipitous meeting with Dr Caroline Gross and reading of a thesis she sent that had been submitted by Dean Carter (2006) on 'The reproductive ecology and conservation genetics of the endangered shrub Grevillea beadleana McGillivray (Proteaceae) in a fragmented landscape information', I determined to set the sights of the Grevillea Study Group on exploring the natural populations of this beautiful species. The concept apparently did not appeal greatly as only Gordon and I turned up on John and Barbara Nevin's door at Armidale on 21 October 2011 with the intention of viewing all the known populations. In part this was to examine and collect specimens as most populations discovered in the last few years were absent from the collections at NSW. Only in this way could we determine whether unresolved taxa lurked among them. The first surprise came as John and Barbara extended the hospitality of their home, food and accommodation to us, as well as a tour of their extensive and lovingly tended native and exotic garden. It was very much appreciated by both Gordon and me.

Our first exploration in the morning of 22 October under John's guidance led us on to private property off Spring Camp Rd 'Enmore' through which we hesitantly drove via paddock gates and mooing cows along a ridge to the escarpment. Here we were met by a deer fence 2 m high that delimited the farm from the bush as far as our eyes could see. The bush was preserved thus in very good condition. After scaling the dizzy heights, we were soon among the plants and here a large population containing hundreds of grevilleas soon spread before our eyes. The grevilleas were scattered over an extensive area among exposed granite rocks in shallow granitic sand on moderately steep slope under the trees in semishade. Flower colour in this population was more pink in the style than others seen. The following list of plants in addition to Grevillea beadleana was recorded with John's assistance: Euc bridgesiana, Casuarina littoralis, Jacksonia scoparia, Cassinia levis, Boronia polygalifolia, Zieria sp. nov., Pimelea linifolia, Olearia ramosissima, Dodonaea viscosa, Calotis cuneifolia, Lomandra longifolia, Pomax umbellata. One of the plants seen reached up to 2.5 m in height, but most were spreading shrubs 1.5-2 m high with a spread of up to 3.5 m wide. Flowering was prolific and nectar abundant but I did not observe any honeyeaters at the time, probably because I was watching my footing.

Femore*



In the afternoon we took off to Guy Fawkes National Park. In my mind I saw the eager face of Don McGillivray from around 1982 after he had been to visit this population. In his hand he held a flowering specimen which he had brought along to show us at a flower show we were holding at the time. The only known other collection of this species was at Walcha in 1887 by a Captain Crawford. It has never been relocated in this area subsequently. I also remember Christine, our ever hard-working treasurer and editor, who with partner Bruce, walked the trails of Guy Fawkes to find this species some years later. Still in 2011, I had never seen it in the wild. So where was it? Along the escarpment obviously so we decided a walk along the Escarpment track SSW of Chaelundi Falls would be the way to go. Wrong! After literally hours of walking through fields of blady grass, Cylindrica imperata, in vast areas of restored former grazing land, the track never really reached the escarpment apart from distant

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Peter Olde

glimpses. We wandered but no sign of Grevillea beadleana. Eventually, almost at the end of the trail c. 500 m north of the Jordan Fire Trail, where there was incidentally another car park, we came upon a wire fence, around which the track which had been heading finally towards the escarpment was forced to detour. Pretty strange in the middle of a national park! We investigated and found our quarry right at the edge of the escarpment under Casuarina littoralis in association with Eucalyptus michaeliana, E. campanulata, E. punctata, Leptospermum flavescens, Jacksonia scoparia, Boronia anethifolia and very little else apart from Poa and Aristida grasses. A moderately small population (20-30 plants) of Grevillea beadleana only on the upper level and at the edge, until we peered over. There they were cascading in abundance down the cliff face, beyond the reach of man. Here the plants were scarcely in flower. Of those that were, occasional plants had pink styles rather than the usual red and the racemes were quite short, although I think the cause was more environmental and seasonal rather than innate to the population. Then the long walk back to the car. Phew! John Nevin strode off as if he had just woken up. Quite fit for a doctor. All up around 10 km I would say. Not hard and not far if you start at the right end of the track.



That night we enjoyed the hospitality and the bed at Nevin's, waking for an assault on the third of five populations, 'Aberfoyle', which occurred on 'Fishington' a private farm on Fishington Rd off the Guyra-Ebor Rd belonging to James and Wendy Robertson, who most graciously provided morning tea and a truck to ride in. There are apparently two populations on this property. For lack of time we could only visit one which was outside the grazing area of the property, on extensive escarpment land. Led by James and his two children we were soon among the plants again. This is incredible country. Steep rocks deeply intersected with precipitous cliffs, rock niches and cascading water falls. Associated species included Dry sclerophyl forest with *Eucalyptus* sp., *Callistemon pityoides*, *Acacia* sp., *Casuarina littoralis*, Jacksonia scoparia, Leptospermum brevipes, Notelaea sp., Pomaderris sp., Westringia sp. nov., Prostanthera nivea, Persoonia sp.

The grevilleas here were not abundant but were flowering in mixed colours of red and pink style. Plants seemed to be working their way back from the edge onto the more sheltered parts of the landscape and were encountered much earlier than we expected them. Most of the plants were on both sides of the escarpment at the top of a deep gorge, the water from which lead to the Aberfoyle River. The second population is around 1 km further around but we judged that *Grevillea beadleana*, here would be much the same. In this country, there seems to be limitless opportunity for the discovery of new populations. Most will be around the boundaries of private land but it is difficult country to access and explore.



We headed back from here to Armidale where we spent time around lunch in an art gallery. Here hung some paintings of David Mackay, a botanical artist I remember who once worked at the NSW herbarium and who was now the partner/husband of Caroline Gross. Too much of a coincidence! Gordon picked up a waratah print and I purchased a *Grevillea beadleana* print that now hangs at Oakdale. We spent the night at David and Sarah Caldwell's out of Tenterfield, who provided us with their wonderful company, hospitality and meals too. They are so busy there but found time to spoil us rotten.

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Our final task was to revisit the population at Silent Grove, 'not Binghi' as Sarah corrected, near Torrington, again inside private property, this time that of Barry McWhinney, who loaned us one of his young workers as guide. We did not take long to find a flowering population. This one seemed to have the most robust inflorescences with bright red styles, really beautiful but little else struck me that could be taxonomically useful. We also came upon a suckering population of *Grevillea viridiflava* in flower. We headed home through the Silent Grove bushland, an exceptionally beautiful piece of country that should be enjoying more protection I feel. At one point we were confronted by a large

billy goat, who stood his ground and even started to advance before our retreat.

Our final population at Chambigne Nature Reserve, south-west of Grafton, could not be accessed on this trip. We had no one to guide us through the maze of private properties in which it is landlocked. There are apparently only a few plants here that were reduced by fire in the season 2003/4 to a single adult plant. It would be good to revisit this population to determine its recovery, especially now that the rain has returned. Special thanks to John and Barbara Nevin and Sarah and David Caldwell.



Jan Glazebrook & Dennis Cox

Grevillea trip - SEQ and Northern NSW

DAY ONE Wednesday, 7th November

At 8.30am we will meet at the Information and Visitor Centre in Boonah.

Depart for base of Mt Greville where we will see *Grevillea linsmithii*.

Back on to Cunningham Hwy through Warwick to Pozieres Rd at Cottonvale, where we will see *Grevillea scortechinii.*

Lunch stop at Stanthorpe at park on Wallangara Rd. Proceed to Basket Swamp. Here we will see *Grevillea* acanthifolia subsp stenomera.

Accomodation for the night will be at Mole River Station near Tenterfield.

DAY TWO

Thursday, 8th November

After a look around the nursery we will drive through Torrington NP. Here we will see *Grevillea viridiflava*.

We should arrive at Gibraltar Range NP in time to do a short walk before making camp Accommodation for 6 people has been booked at Gibraltar House. There is camping in the park at Mulligans Camp area. Here we will see *Grevillea rhizomatosa*, *Grevillea acerata*, *Grevillea acanthifolia* and *Grevillea mollis* and other wonderful plants.

DAY THREE

Friday, 9th November

A full day spent in the Gibralter Range NP.

Accommodation will be as for day 2.

DAY FOUR

Saturday, 10th November

We will descend the range on to the coastal plain. Here we will look for *Grevillea banyabba* near Banyabba and *Grevillea masonii*.

From here we will return home.

Grevillea news

New research project – A conservation perspective to species boundaries in the *Grevillea* subgroup *floribunda*: exploring reproduction, population genetics and evolutionary trajectories

Department of Botany, La Trobe University, Kingsbury Drive, Bundoora VIC 3086

Email: jlatkinson@students.latrobe.edu.au

Following the article in GSG Newsletter No. 91 on a full revision of the *Grevillea alpina* complex by Peter Olde and Neil Marriott (Marriott 2012), we thought it timely to introduce a new PhD project being undertaken by Ms Juli Atkinson in the Department of Botany at La Trobe University.

The focus of the study will be on reproductive and genetic barriers among *Grevillea alpina*, *G. chrysophaea* and *G. celata* in relation to species boundaries and evolutionary trajectories of these three Victorian species. We will specifically address the hybrid hypothesis, raised by Molyneux (1995), of *G. alpina* and *G. chrysophaea* being founding parental taxa of *G. celata*.

Genetic markers (SSRs or microsatellites) that have already been developed from various *Grevillea* species (England, Ayre *et al.* 1999; Hoebee 2011; James unpublished) will be used to genetically profile the various taxonomic rank of specimens from these three broadly circumscribed species. We plan to work with Peter Olde and Neil Marriott to include many of their morphological forms of *G. alpina* (Marriott 2012; Olde & Marriott 1995) and to expand Juli's earlier honours research on regional and genetic structuring of *G. chrysophaea* (Atkinson 2010).

Aspects of reproductive ecology will be explored in the field through monitoring of floral phenology, observation of floral visitors, and quantification of nectar rewards both in terms of volume and concentration. Back in the laboratory we have equipment and established methodology for assessing floral colour based on spectral reflectance within the peak visual range of birds and insects. These biological characters, that drive pollination success, will be augmented by controlled cross-pollination of forms and determination of realised fertilisation success.

We would encourage the contribution of photographs of floral visitors that fellow *Grevillea* enthusiasts observe on natural populations of *G. alpina, G. chrysophaea* and *G. celata.* For these to be valuable for the purposes of our research they must be sharply in focus and will need to

come with information regarding the *Grevillea* species on which any visitors were observed, date of the photograph, a specific location (a GPS point would be wonderful but a point on a map would be just as suitable), and the name of the photographer/s. Such contributions would be gratefully received and fully acknowledged in product that is generated.

This research would greatly benefit from a phylogenetic investigation of relatedness among the ten species within the *Grevillea* Group *Floribunda* Subgroup *Floribunda*. We would very much like to undertake such an investigation in collaboration with Peter Weston and Bob Makinson at the Royal Botanic Garden Sydney, as well as Peter Olde, but currently this is dependent on securing external research funds.

As well as helping clarify the relationships between these *Grevillea* species, the results generated by this PhD project will contribute to our understanding of the scale of evolutionary processes, with likely implications for management of rare and endangered species beyond the boundaries of parks and reserves.

References:

Atkinson JL (2010) Evidence for and against regional structuring within the discontinuous distribution of *Grevillea chrysophaea* Muell. Ex Meisn. (Proteaceae). Honours Thesis, La Trobe University, Melbourne.

England PR, Ayre DJ, Whelan RJ (1999) Microsatellites in the Australian shrub *Grevillea macleayana* (Proteaceae). *Molecular Ecology Notes* **8**, 689-690.

Hoebee S (2011) Development and cross-species amplification of microsatellite markers from the endangered Wee Jasper Grevillea (*Grevillea iaspicula*, Proteaceae). *Muelleria* **29**, 93-96.

Marriott NR (2012) *Grevillea alpina Grevillea* Crawl Spring 2011. In: 'Grevillea Study Group. Vol. 91. pp. 3-7. Australian Native Plants Society (Australia) Inc.

Molyneux WM (1995) *Grevillea celata* (Proteaceae), a new species from central eastern Gippsland, Victoria. *Muelleria* **8**, 311-316.

Olde PM, Marriott NR (1995) The Grevillea Book. Kangaroo Press: Kenthurst.

Tony Cavanagh

Grevillea news

Who was W. Baeuerlen?





Baeuerlen on the Bonito expedition to Papua, 1885.

Roger in his article on *Grevillea kennedyana* in the June Newsletter, asks (from the comfort of an air-conditioned 4 wheel drive) what W. Bauerlen was doing out there in such inhospitable country when he collected the first specimens of this plant in 1887. Well, the short answer is – he was just

doing his job, because he was a paid botanical collector for both Ferdinand Mueller, the Victorian Government Botanist, and later the Technological Museum in Sydney.

His German name was Wilhelm Bäuerlen which is usually Anglicised to William Baeuerlen. He was born in Niedernhall, Germany on 27 October, 1840 and died in Sydney on 28 October, 1917. His date of arrival in Australia is unknown but he apparently left Germany to emigrate to Australia in 1863 and was sending botanical specimens to Mueller in 1883 (leaving a nice gap of 20 years about which we know nothing). He worked as a contract collector for Mueller from 1883 to 1889 and for the Technological Museum from 1890 to 1905, although the last few years with the Museum were marred by ill health and disputes with the Curator, Richard Baker.

Even though Baeuerlen is little known today, he is commemorated in plants from Eucalyptus, Correa and Pultenaea among others, perhaps as many as 20 new species being named after him. His collections number several thousand specimens and include gums, timber and even bags of Ecalyptus leaves for on-going research at the Museum on essential oils, as well as botanical/ herbarium specimens. About 70 new species/ subspecies were described from his material, including six new Eucalyptus, the Grevilleas G. kennedyana and G. renwickiana, and the plant that many people are familiar with, the Chef's Cap Correa, C. baeuerlenii, named in his honour by Mueller from specimens collected by Baeuerlen in the Clyde River district of southern coastal New South Wales in 1884. Baeuerlen was based in the Shoalhaven area of NSW (around Nowra) but collected widely all over the state, especially in the south-east, north-east rainforests, and central and north-west. His specimen of G. kennedyana was collected around August - December 1887 in the Grey Range when he spent some six months botanising between Wilcannia and Tibooburra. He was also active in East Gippsland and southeast Queensland.

His later years do not make happy reading. Baeuerlen was apparently a difficult character and quarrelled with Baker the Curator and other staff. He was eventually banned from all but public areas of the Museum, despite the

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Grevillea news



fact that his material had been so significant in building up its botanical prestige. He also separated from his wife, a woman 25 years his junior, but we know little of his later activities. He died in a Sydney hospital from a stroke and possibly bacterial meningitis and was buried in an unmarked grave in the public section of the Rookwood Cemetery. This was a sad ending for a man whom Mueller had called "a circumspect and zealous collector".

Acknowledgments

In compiling this brief account of the life of William Baeuerlen, I have relied heavily on the following:

Wilson, K.L. "William Baeuerlen – a circumspect and zealous" collector", in Short, P.S. (ed.) History of systematic botany in Australasia, Melbourne, Australian Systematic Botany Society Inc., 1990.

George, Alex S. Australian botanist's companion (p. 285-6 for article on Wilhelm Bäuerlen), Kardinya, W.A., Four Gables Press, 2009.

Hall, Norman, Botanists of the Eucalypts (p. 10 for article on William Baeuerlen), Melbourne, CSIRO, 1978.

Joan B. Webb

Allan Cunningham and Grevillea in the top end

It was March 27, 1818 ...

"...we anchored in the bay on the South-West side of the island, at about half a mile from the beach... Among the flowers that were strewed about the island. was a superb shrubby grevillea, with scarlet flowers."

Where was this island? Which species of *Grevillea*? Who wrote this report?

The observation was made and recorded by Captain Phillip Parker King in his *Narrative* of a survey in H.M.C. MERMAID as it travelled across the top of Australia, the first of three voyages in this cutter, followed by a fourth in the BATHURST. On all four voyages King was accompanied by the botanist Allan Cunningham, ordered by commission from Lord Bathurst, 8 February 1819, in a letter to King:

'Besides the persons necessary for navigation of the vessel, you will receive on board Mr A. Cunningham, a botanist, now in New South Wales, who has received the orders of Sir Joseph Banks to attend you...' Having left Port Jackson on 21 December 1817, the MERMAID sailed south, west across the southern coasts, and up the coast of Western Australia. At about noon on 27 March the MERMAID anchored in South West Bay of South Goulburn Island, N.T., 11° 39' S', 133° 21' E. to the north of present-day Arnhem Land Aboriginal Reserve on the mainland.

The 'Red Grevillea'? It was probably *Grevillea heliosperma* R.Br. (1810), which Cunningham would have known from Brown specimens. Brown had found the plant in 1802 in the Gulf of Carpentaria while on the voyage with Matthew Flinders; he published his description in Trans. Linn. Soc. London, Botany 10, 176.

In the Appendix of King's *Narrative*, Volume 2, Allan Cunningham provided 'A Few General Remarks on the Vegetation of Certain Coasts of Terra Australis, and more especially of its North-Western Shores.' He wrote (p. 508):

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In the wild

'In the Herbarium formed during the late voyages [a total of four, 1817-1822], are specimens of thirteen species of intertropical Grevillea, in various stages of perfection; of these seven are described from specimens formerly gathered upon the East Coast, and in the Gulf of Carpentaria; the remaining six are, however, perfectly new, and will chiefly augment the last section of that genus, having hard (in some instances spherical) woody follicles, containing seeds orbicularly surrounded by a membranous wing, more or less dilated, and a deciduous style; characters that future botanists may deem sufficient to justify its separation from Grevillea. The range of this division, which has been named by Mr Brown, Cycloptera, has been hitherto limited to the Gulf of Carpentaria, and the tropical shores of the East Coast.'

Cunningham's seven 'known' species of Grevillea:

Grevillea chrysodendron R.Br. Prod. 379 (1810). Type, R. Brown, 1802. Base name for *G. pteridofolia* J. Knight (1809). A Cunningham, North Coast.

Grevillea dryandri R.Br. (1810). Trans. Linn.Soc. London, Botany 10: 175. Type: islands in the Gulf of Carpentaria. Nov.-Dec. 1802, R. Brown. Goulburn Island, A. Cunningham.

Grevillea heliosperma R. Br. (1810). Trans. Linn. Soc. London, Botany 10, 176. Type: Gulf of Carpentaria, R.Brown, 1802. A Cunningham, S.Goulburn Island, Port Raffles (N.T.).

Grevillea mimosoides R.Br. (1810). Trans. Linn. Soc. London, Botany 10: 177. Type: an island, Gulf of Carpentaria (probably Sweers Island), Nov. 1802, R. Brown. A Cunningham, Careening Bay in the Kimberley, W.A.

Grevillea refracta R.Br. (1810). Trans. Linn. Soc. London, Botany 10: 176. Type: Vanderlin Is., Gulf of Carpentaria, R.Brown, Dec. 1802. A Cunningham, Cambridge Gulf, W.A.

Note: It is an assumption that the two following species, published by Robert Brown in 1810 as *Anadenia*, were identified by Cunningham as 'known' *Grevilleas*.

Grevillea pulchella (R.Br.) C.F. Meisner (1845) – based on *Anadenia pulchella* R.Br. Trans. Linn. Soc. London, Botany 10: 176. Type: King George Sound, W.A. Dec. 1801, R.Brown, Meisner in Pl. Preiss. i. 553 (1845). A. Cunningham, King George Sound.

Grevillea trifida (R.Br.), C.F. Meisner (1845) – based on *Anadenia trifida* R. Br. Trans. Linn. Soc. London, Botany 10: 167. Type: King George Sound, W.A. Dec. 1801, R.Brown. Meisner in Pl. Preiss. i. 553 (1845). A. Cunningham, King George Sound.

Cunningham's six new species of Grevillea

Grevillea agrifolia A. Cunn. ex R.Br. Prot. Nov. (1830) 24. Type: Cunningham, 1819, Voyage 2 of MERMAID, Lacrosse Island, W.A. (14° 45' S, 128° 19' E)

Grevillea angulata R. Br. Prot Nov. (1830) 24. Type Cunningham, 1818, Voyage 1 of MERMAID, Sims Island (off South Goulburn Island, N.T.)

Grevillea cunninghamii R. Br. Prot. Nov. (1830) 23. Type: Cunningham, 1820, Voyage 3 of MERMAID, Montague Sound, W.A. (14° 26' S, 125° 25' E)

Grevillea leucadendron A. Cunn. ex R.Br. Prot. Nov. (1830) 25. Type: Cunningham, 1819, Voyage 2 of MERMAID, Cambridge Gulf, W.A. (15° 02' S, 128° 10' E).

Grevillea pyramidalis A. Cunn. ex R.Br. Prot. Nov. (1830) 25. Type: Cunningham, 1821, Voyage 3 of MERMAID, Prince Regent River, W.A. (15° 23' S, 125° 02' E).

This is a doubtful Cunningham *Grevillea*, since Bentham records that only leaves of this specimen were collected by Cunningham at Careening Bay in the Kimberley. This may account for its later publication by Mueller in 1863. *Grevillea dimidiata* F. Mueller (1863) Frag. Phyt. Austral. 3, 146. Type: Roper River, N.T., 1862, F. Waterhouse, of McDouall Stuart's Expedition.

Greville Island, W.A. (15° 18' S, 124° 51' E).

King was sailing down the Kimberley coast on his fourth voyage in the ship BATHURST. He reported in his *Narrative* (Vol. 2, p. 53):

'Explored Half-Way Bay – island called after the late Right Honble. Charles Greville, whose name has also been given to a family of plants (grevillea, sic,) that bears a prominent rank in the botany of this country.'

30 July – 5 August 1821.

4 August – King collected a species of *Grevillea* from a small rocky island adjacent to Greville Island.

Now, which Grevillea was that?

References:

Bentham, G. Flora Australiensis, Vol. 5, 1870, London.

King, P.P. Narrative Of A Survey Of The Intertropical And Eastern Coasts Of Australia, 2 Vols., 1927.

Olde, P.M. and Marriott, N.R. *The Grevillea Book*, 1994.

Tony Cavanagh

Bumble bees and Grevilleas

In 2007, we were holidaying in New Zealand and were visiting the town of Nelson in the South Island. It is quite an attractive town with some interesting gardens. Surprising as it may seem, there are a lot of Australian plants grown in New Zealand, often fairly common things like Callistemons, some hardy Grevilleas, the odd kangaroo paw and in the summer months, many towns are alive with red flowering gum in a multitude of colours. I think that the largest and most floriferous Corimbia ficifolia (as it is now) that I have ever seen was growing in the yard of a house in a northern South Island town. And perhaps even more astonishing, one of the best collections of Australian plants in any Botanic Gardens outside of Australia is in Dunedin, a town whose latitude is below that of the South Cape of Tasmania!

Back to Nelson. In one of the parks we came across a strange *Grevillea*, nicely in flower which I didn't recognise although its leaves looked familiar. I showed a picture to Peter and he thought it might be a hybrid, *G. olivacea* 'Apricot Glow'. Anyway, while deciding whether to photograph it, I saw this large, bee-like creature flitting from flower to flower. It turned out to be a bumble bee, something we have few of in Australia but which are apparently common in New Zealand. It might not have seen a *Grevillea* flower before but it knew what to do about the pollen, as the attached picture shows. I guess most birds and insects adapt to new and strange flowers, otherwise they would have a pretty lean time of it.



Roger Wileman

In Search of Grevillea kennedyana

In October 2010 I talked to Matt and Pam Baars about their recent trip to Cameron's Corner and the Sturt National Park. They told me how the recent rains had transformed the area into a green paradise with wild-flowers everywhere and huge numbers of different species of birds. I did not need any more convincing to go, so after a few phone calls, fuelling and packing the 4wd, five of us, in two vehicles, were off.



One of our main objectives was to find *Grevillea kennedyana*, which we hoped would be in flower. *Grevillea kennedyana* was named in honour of Mrs M.B. Kennedy who collected specimens for Ferdinand Von Meuller in the North West of N.S.W. This grevillea is very rare in cultivation and, as far as I know, is the only one growing wild in three states as it occurs at the junction of the NSW, SA and QLD borders.

Grevillea kennedyana is a well formed plant 1.5m in height with silver grey, prickly foliage and bright red spider flowers – a very attractive plant. We didn't have any luck finding it at Cameron's Corner so went back to Tibooburra and, armed with a verbal mud map from the lady at the rangers office, we headed out 80km to the Sturt National Park, where she had seen a plant with red flower half way up a "mesa". We travelled a long way out until we entered the "moonscape" area and further on into the "nuclear" area at the start of the Breakaways, where the land rises up to a high plateau.

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Sure enough, right where the lady at the ranger's office said it would be, we found 50-60 plants. Really, they weren't very hard to find as they were the only plant above knee height. *Grevillea kennedyana* is a very attractive plants and is something that should be in cultivation.

We travelled in the luxury of 4WD vehicles but to think this plant was discovered by W. Baeuerlen in 1887, makes one wonder what he doing was out there.



Further Notes on Grevillea kennedyana

We saw a plant of this species (which I had never previously heard of) at the Myall Park Botanic Garden near Glenmorgan during a recent trip to Queensland. My first reaction was "what an ugly plant", as the picture perhaps shows.



It is claimed to be "vulnerable" although Olde and Marriott state in The Grevillea Book that a population of some 7000 had been located, presumably in the 1990s. The plant at Myall Park is grafted onto G. robusta, just one of several rootstock tried on an effort to bring this plant into cultivation. As Roger's pictures and story show, it grows in pretty inhospitable country and is very rarely cultivated. The second picture shows a few flowers (nothing like the huge clusters in Roger's pictures) but most interestingly, clearly shows the short, dagger-like silvery "galvanised" leaves which contrast so well with the deep red flowers. Why do such interesting plants have to be so prickly?



Grevillea kennedyana – photo by Liz Cavanagh

Bernie Shanahan – Murrumburrah, NSW

Grevilleas Galore

Situated about one hour southwest of Wagga Wagga & ten minutes from Lockhart is the Galore Hill Nature Reserve, elevation 210 metres. There is a lookout, picnic area with barbecues, toilets, walking tracks & the Morgan Caves, used by Mad-dog Morgan. Apart from the local vegetation the Wagga Wagga APS group have planted areas for hakeas, eremophilas, scattered eucalypts & a fenced area for grevilleas. During a brief work assignment in mid June at Lockhart I first visited the hill & showed some friends around on the October long weekend. The hakeas that are left are large & some look a bit poor but, as would be expected in this area of low rainfall, the eremophilas were looking great with plenty of flowers in June, a bit sparse around the base but this is typical of unpruned eremophilas -E. youngii with its grey foliage & pinkish flowers was a standout. Banksias were also planted out apparently but I could not locate them. Besides the local vegetation, which includes native orchids. Matt Hurst informs me that there is a population of G. floribunda near the summit.

As I approached the grevilleas in October I pulled over to see a couple of flowering gums, unusual because the blooms appeared to be orange. They were the orange/yellow buds of *Eucalyptus torquata* (coral gum) with only a few pink/white flowers opened at the time. Apart from the colour the fruit is an unusual shape with a slight hook on the base, a very attractive tree.

Below is a list of the grevilleas as best that I could ascertain:

calliantha. corrugata, crithmifolia, fililoba, georgeiana, glabella, hodgei (labelled as whiteana), hookeriana, insignis subsp elliotii, intricata, involucrata, magnifica, newbeyi, obliquistigma subsp. funicularis, oligomera, olivacea orange, paniculata, paradoxa, petrophiloides, pilosa subsp. pilosa, plurijuga, rigida, rigida subsp. rigida, spinosa, superba, tetragonoloba, thyrsoides subsp. pustulata & wilkinsonii.

Some brief observations are: *magnifica* & *petrophiloides* large.

At first I thought the orange *olivacea* was a cultivar, it looked great in full flower.

corrugata - another large plant.

involucrata with its persistent flower bracts was healthy & scrambling.

obliquistigma was one of the few not flowering.

paradoxa was small, a bit sparse.

georgeiana was defoliated on one side but had about twelve good flowers – could be on its last legs.

superba lived up to its name, full of light pink flowers & in my opinion they are better than the *plurijuga* flowers.

spinosa was another small plant with just a few flowers opening, yellowish green, but healthy.

crithmifolia was big & spread out – very good condition with heaps of flowers.

hodgei & 'Misty Pink' were about three metres high resembling small trees, both healthy.

What can be gleaned from the above list is that most of these plants that have survived (and thrived) in this mostly arid enviroment are from Western Australia.

Of the other plants glabella was low & stuggling.

The *wilkinsonii* only about one metre high & perhaps protected by being almost being surrounded by another grevillea. the odd bods were the *hodgei* & 'Misty Pink', a long way from home with not much to drink.

There are many more dead plants, particularly from NSW & Victoria, & what are still alive is a testament to the efforts of the local plant society that, as far as I know, first planted in the early nineties.

Except for the tyranny of distance this would be a worthwhile place for the group to visit in September when it is at its most floriferous.The standout grevillea for me was *oligomera*, a well rounded shrub 2 x 3 metres with fantastic flower colour.

Vale Donald John McGillivray (1935-2012), botanist

On Friday morning, 17 August 2012, after suffering for over 35 years with Parkinson's Disease, the Grevillea botanist and botanical historian Don McGillivray finally gave up his spirit, aged 76 years. He is survived by his wife and long-time carer June and two children, Andrew and Leanne, and four grandchildren. Don was a fit handsome man, especially in his younger days, who enjoyed sport and keeping fit. He played grade cricket, football and was an outstanding fencer. He was also especially talented as an athlete excelling at the longjump and sprinting. In 1956, he was one of a select few chosen to run with the Olympic flame through Gosford, the city in which he grew up and went to school. After leaving school, he graduated with a Science degree from the University of Sydney after which time he qualified and worked as a forester first of all in the Wingello and Moss Vale area but later at Sydney Wood Tech, Castle Hill where in 1961 he settled with his family. He became interested in taxonomy and in 1964 joined the staff of the Royal Botanic Gardens in Sydney where he pursued it as a career. There he was trained in systematics by Dr Lawrie Johnson with whom he co-authored several papers on Proteaceae, ultimately rising to Senior Botanist. From Dr Johnson he inherited an interest in Grevillea and began to specialise in the study of this genus. At the same time he developed a keen interest in botanical history, writing several papers on the botanical discovery of Australia as well as interesting short pieces on Karel Domin, Ludwig Preiss, Richard Salisbury and Michel Gandoger. He also became an expert on the handwriting of various botanists.

In 1969–1970, he served as Australian Botanical Liaison Officer (ABLO) at the Royal Botanical Gardens Kew where he spent much time on the nomenclature and typification of *Grevillea* taxa and examining valuable historic specimens in the UK and other European. During one such excursion to Edinburgh Botanic Garden he recognised the type form of *Grevillea rosmarinifolia* growing against a wall, a form of the species which had not been collected in Australia since around 1840. He then arranged for cutting material to be returned to Australia for re-propagation and cultivation. I have a plant of this clone in my own garden today.



In 1973 he was a founding member and secretary of the Australian Systematic Botany Society and in 1975 made a large contribution to the first issue of Telopea. At some point in this period, Don formed the intention of revising the genus Grevillea, third largest in the Australian flora. In this endeavour he built on the work begun by L.A.S Johnson, ultimately becoming the authority on the genus himself. Huge numbers of specimens on loan from almost every institution that holds specimens of Grevillea soon arrived and were stored at RBG Sydney to be examined by him. He also gained a research assistant, Christine Cornish. As he developed his broad species concepts and ideas, Don's views of classification conflicted with those of his colleague and then herbarium director Lawrie Johnson, a botanical splitter with a feisty personality and fierce intellect, and a man not known for his tolerance. Don though was independent, had belief in his views and, born of Scottish ancestry, possessed a streak of stubbornness too. Heated arguments and some personal animosity ensued, I am told, after which Don preferred to work alone in an adjacent building, known as the cottage. There the hostile working atmosphere was more peaceful and accidental corridor encounters were minimised.

In the winter of 1976 Don spent three months travelling around south-west Western Australia with Alex George looking at and collecting grevilleas. There was little in flower but Don made over a thousand collections. According

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Obituary

to Alex, he was forever pulling up to check out the acacias because when neither are in flower their habit and foliage can sometimes bear an uncanny resemblance to *Grevillea* species. Soon after this trip Don began to realise that not all was well with his body and in 1977 he was diagnosed with Parkinson's Disease, a disease which at first had little impact on him. Gradually though it would torture and end his life. Other herbarium duties, especially editorship of the house journal *Telopea*, suited his meticulous nature but interfered with his research on *Grevillea*.

He battled on but a tremulous writing hand and a shuffling walk signalled the inevitable and in 1985 he retired. He was an honourable man and a deeply religious Christian, retiring on medical grounds, essentially because he could no longer give value for his day's pay. One of his legacies is a collection of over 3900 georeferenced herbarium specimens. Though he was much restricted in his retirement by his illness, he continued work on the Grevillea revision at home in Castle Hill at his own pace and with the assistance of Bob Makinson right up until it was published. During this time he delivered newspapers for extra income, using it as a form of fitness and exercise. He also worked as a clerical assistant at a local printer. He relaxed by doing sudoko and being an armchair competitor in TV Quiz shows, for which, his family report, he demonstrated a prodigious talent.

He was a keen trout fisherman, enthusiastically tying his own flies and developing quite a collection in the process. He often spent his lunchtime throwing a line down in Farm Cove or practising casting on the lawn. Even after a serious brush with death in 2010, he was keen to get back to another day's fishing, off the wharf in his wheelchair, declaring to me that he was not finished yet. For a long time he firmly believed he would be cured.

In 1986, he privately published his new *Grevillea* names in a botanically acceptable, yet unconventional abbreviated way. In 1988 (West Australian Naturalist Pp 111–117) Kevin F. Kenneally named *Grevillea donaldiana* in his honour.

In 1993, assisted by RO 'Bob' Makinson, his monograph on Grevillea, the first since Bentham in 1870, was published by Melbourne University Press. Don was kind enough to give me a copy of this monumental work which retailed at \$225. Apart from developing new character states, the great achievement of the work, apart from the careful, well-researched scientific descriptions, is his detailed synonymy and typification in the separate nomenclatural section at the back. In addition, his notes on species relationships on Pp. 453-454 have proved very intuitive. When asked how he managed to complete such a work, he replied it was just like sorting matches. Don was awarded the Engler Medal in Silver in 1993 jointly with Peter C Boyce of Kew, both for separate botanical monographs. The medal which recognises high quality monographs was accepted on his behalf by Bob Makinson in Hungary in 1996. Citation of his name as botanical authority is now abbreviated to McGill.

Don retained his sense of humour and enthusiasm, especially for fishing and family, right up until his last breath. His mind remained sharp and his memory excellent. His funeral service at Greenaway Chapel, Green Point on 22 August preceded a burial at Point Clare Cemetery where he was laid to rest. Delivering the eulogy, Andrew his son revealed an amusing piece of McGillivray whimsy. 'There are three kinds of people in the world' confided Don 'those that can count and those that cannot.'

A list of his Don's publications is compiled below. Hopefully there are no omissions.

Pryor LD, Johnson LAS, Whitecross MI & McGillivray DJ (1967) The perianth and the taxonomic affinities of *Eucalyptus cloëziana* F. Muell. *Australian Journal of Botany* 15: 145–149.

Rupp HMR (1969) The orchids of New South Wales. Facsimile Edition, Tindale M [ed.] with supplement by D.J. McGillivray (Government Printer: Sydney).

McGillivray DJ (1970a) First botanical studies in Australia. *Australian Natural History* 16(8): 241–288.

McGillivray DJ (1970b) Gathered at Botany Bay. *Progress* 9 (2): 1–7.

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McGillivray, DJ (circa 1970c) Plants Collected by Banks and Solander at Botany Bay in 1770. *A schedule to Captain Cooks Landing Place Historic Site Plan of Management.* (Authors name not included in publication.)

McGillivray DJ (1970d) A Checklist for the Illustrations of the Botany of Cook's First Voyage. *Contributions from the New South Wales National Herbarium* 4(3): 112–125.

McGillivray DJ (1971a) Apatophyllum: An interesting new Australian genus in Family Celastraceae. *Kew Bulletin* 25(3): 401–406.

McGillivray DJ (1971b) Joseph Banks: A 'Tolerable Botanist'. *Journal of the Royal Australian Historical Society* 57: 10–16

McGillivray DJ (1972) A Nomenclatural Tour (*Ixora queenslandica* Fosberg). *Contributions from the New South Wales National Herbarium* 4(5): 262–264.

McGillivray DJ (1973a) Gandoger's names of Australian plants. *Contributions from the New South Wales National Herbarium* 4(6): 319–365.

McGillivray DJ (1973b) Domin's Beiträge zur Flora und Pflanzengeographie Australiens. *Contributions from the New South Wales Herbarium* 4(6): 366–368.

McGillivray DJ (1973c) The handwriting of Richard Salisbury (1761–1829) and some incidental notes. *Contributions from the New South Wales Herbarium* 4(6): 369–372.

McGillivray DJ (1973d) The Australian Systematic Botany Society. *Brittonia* 25: 314.

McGillivray DJ (1975a) Johann August Ludwig Preiss (1811–1883) in Western Australia. *Telopea* 1(1): 1–18.

McGillivray DJ (1975b) Australian Proteaceae: new taxa and notes. *Telopea* 1(1): 19–32.

McGillivray DJ (1975c) *Billardiera* Sm. and *Rhytidosporum* F. Muell. (Pittosporaceae) in New South Wales. *Telopea* 1(1): 55–57.

Johnson LAS & McGillivray DJ (1975d) *Conospermum* Sm. (Proteaceae) in eastern Australia. *Telopea* 1: 58–65. McGillivray DJ (1975e) *Dodonaea* (Sapindaceae): Taxonomic Notes. *Telopea* 1(1): 66–67.

Smith RV & McGillivray DJ (1975f) *Grevillea willisii* (Proteaceae) a new Victorian species. *Muelleria* 3(2): 102–111.

McGillivray DJ (1983a) A revision of *Galium* (Rubiaceae) in Australia and New Zealand. *Telopea* 2(4): 355–378.

McGillivray DJ & Hearne DA (1983b) Northern Territory Grevilleas. *Grevillea Study Group Newsletter* 8: 8–11.

McGillivray DJ (1984) *Grevillea parviflora*. *Grevillea Study Group Newsletter* 10: 2.

McGillivray DJ (1985) Proposal to amend 2045 *Grevillea* R.Br. ex Knight, *nom. cons.* (Proteaceae). *Taxon* 34: 536–537.

McGillivray DJ (1986) New Names in *Grevillea* (Proteaceae). (Private: Castle Hill).

McGillivray DJ & Makinson RO (1993) *Grevillea*, *Proteaceae*: a taxonomic revision. (Melbourne University Press: Carlton, Victoria)

McGillivray DJ (1994) The *Grevillea* Revision. *Grevillea* Study Group Newsletter **38**: 3–4.



Don McGillivray at the the herbarium.

Peter Olde

Grevillea huegelii - special appeal

It came as a surprise to me that fruits and seeds of this species have scarcely ever been collected. As part of research into the species, I here make an appeal to all members living in areas where it grows, to make a special collection and forward to me at Oakdale. Fruits and a pressed specimen of the foliage are required. Please also record the location from where the collection was made. Green fruits ready to open are best as they will have the seeds. Fruits without seeds, collected from under the bush would also be useful. 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

Seed Bank

Matt Hurst

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

\$1.50 + s.a.e.

Grevillea aurea Grevillea baileyana Grevillea banksia alba prostrate Grevillea biternata Grevillea candelabroides Grevillea crithmifolia Grevillea decora Grevillea decurrens Grevillea eriobotrya Grevillea eriostachya Grevillea excelsior Grevillea floribunda ex Coonabarabran Grevillea glauca Grevillea johnsonii (Itd) Grevillea juncifolia Grevillea leucopteris Grevillea longistyla Grevillea magnifica Grevillea magnifica ssp magnifica Grevillea manglesii ssp manglesii (ltd)

Grevillea monticola Grevillea nana ssp abbreviatta Grevillea newbeyi Grevillea nudiflora Grevillea occidentalis Grevillea paniculata Grevillea paradoxa (Itd) Grevillea polybotrya Grevillea pteridifolia Grevillea pulchella Grevillea refracta Grevillea ramosissima Grevillea stenobotrya Grevillea striata (Itd) Grevillea superba Grevillea synapheae Grevillea teretifolia Grevillea tetragonoloba Grevillea triloba Grevillea triternata Grevillea vestita Grevillea wickamii ssp aprica Grevillea wilsonii

Please include a stamped self addressed envelope.

Free + s.a.e.

Grevillea nana ssp abbreviata	Grevillea leucopteris
Grevillea banksii alba	Grevillea longistyla
Grevillea banksii – grey leaf form	Grevillea mimosoides
Grevillea banksii – red tree form	Grevillea 'Moonlight'
Grevillea banksii – red prostrate	Grevillea 'Moonlight x
Grevillea Bon Accord	Ivanhoe'?
Grevillea caleyi	Grevillea occidentalis
Grevillea caleyi	Grevillea plurijuga
Grevillea decora	Grevillea pteridifolia
Grevillea didymobotrya	Grevillea robusta
Grevillea diversifolia	Grevillea 'Sandra Gordon'
ssp subtersericata	Grevillea superba
Grevillea didymobotrya	Grevillea robusta
Grevillea diversifolia	Grevillea 'Sandra Gordon'
ssp subtersericata	Grevillea superba
Grevillea eriostachva	Grevillea supapheae
Grevillea floribunda	Grevillea tripartita ssp
Grevillea goodii	macrostylis
Grevillea iobasonii	Gravillaa vastita
Grevillea johnsonii 'Orange'	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.

Seed bank

Financial Report - October 2012

Income	
Subscriptions	\$220.00
Seeds	36.00
Interest	5.99
	\$261.99
Expenditure	
Newsletter publishing	\$240.00
Printing	55.55
Postage	76.10
Bank fees	2.50
	\$374.15

Amount in interest bearing deposit till 25/2/2013 **\$28,755.26**

Balance in current account 7/10/2012

\$1,384.30

Balance in business cheque account 7/10/2012 **\$1,107.68**

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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

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 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 January 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.

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.