



Newsletter

November 2019

No 17

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A Word from the Leader

Royce Raleigh

Firstly, I wish to thank everyone for the great reception our first newsletter received. The more feedback we get from members the more useful newsletters will be to all.

Where has this year gone? It seems that only yesterday we were still getting beyond the FJC Rogers Seminar, and here it is over 12 months and we are wishing all our members a happy and safe Christmas.

I hope that the Goodeniaceae plants you have added to gardens are thriving, and that they made a good display this year. Hopefully members will be able to add to their collections in the coming years.

With a great spring behind us, we are now preparing for the summer ahead of us. We know just how dry other states are, and the horrendous fires many are experiencing. We hope that all our members will remain safe and well and be able to enjoy their gardens this summer.

Next Newsletter

The next newsletter will be published in April 2019.

We would love to hear from you and in particular if you have any photos for the photographic record of Goodeniaceae species suitable for identification purposes. It would be great to build on the already published photo-guides which were made available at the 12th FJC Rogers Seminar 2018 - Goodeniaceae. We will be able to add pages to the end of each Newsletter. You will then be able to extract them from the newsletter and add to the photo-guides which most of you will already have. For those who do not have the photo-guides please contact Maree on goodeniaceastudygroup@gmail.com.

Goodeniaceae Study Group

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Royce and Jeanne Raleigh visited WA in August this year. Here is one of their great photos. Royce writes, this was an interesting colour form of *Lechenaultia formosa* that we found on our trip to WA in August. It was down in the Bremer Bay area.

Growing *Dampiera alata* in my Montrose Garden

Text and photos - Bruce Schroder

Many years ago (approx 30?) when first developing my garden on the lower slopes, western face of Mount Dandenong on the outer eastern edge of Melbourne, I was determined to feature a display of special plants from Western Australia, most of which at the time were only available as cutting material collected at APS meetings or garden visits at fellow Australian Plant enthusiasts' gardens. The local soil is a good quality clay loam and being on quite a slope, is quite well drained. I had what I thought was the perfect position on the high side of the driveway in an open sunny position facing due west and I enhanced this bed with the incorporation of approximately eight cubic metres of coarse sand mixed through the local soil and formed into a large mound.

Into this I planted numerous *Leschenaultia* sp, *Dampiera* sp, a number of *Calytrix*, *Verticordia*, small *Melaleuca* and *Dryandra* sp and even a few choice ground cover *Grevillea* on their own roots such as *Grevillea nana* and *Grevillea dryandroides* (courtesy David Shields). Grafting *Grevilleas* was not even heard of then. For a number of years I was truly

rewarded and spring was a riot of colour, often supplemented with swathes of what was then *Helipterum roseum*.

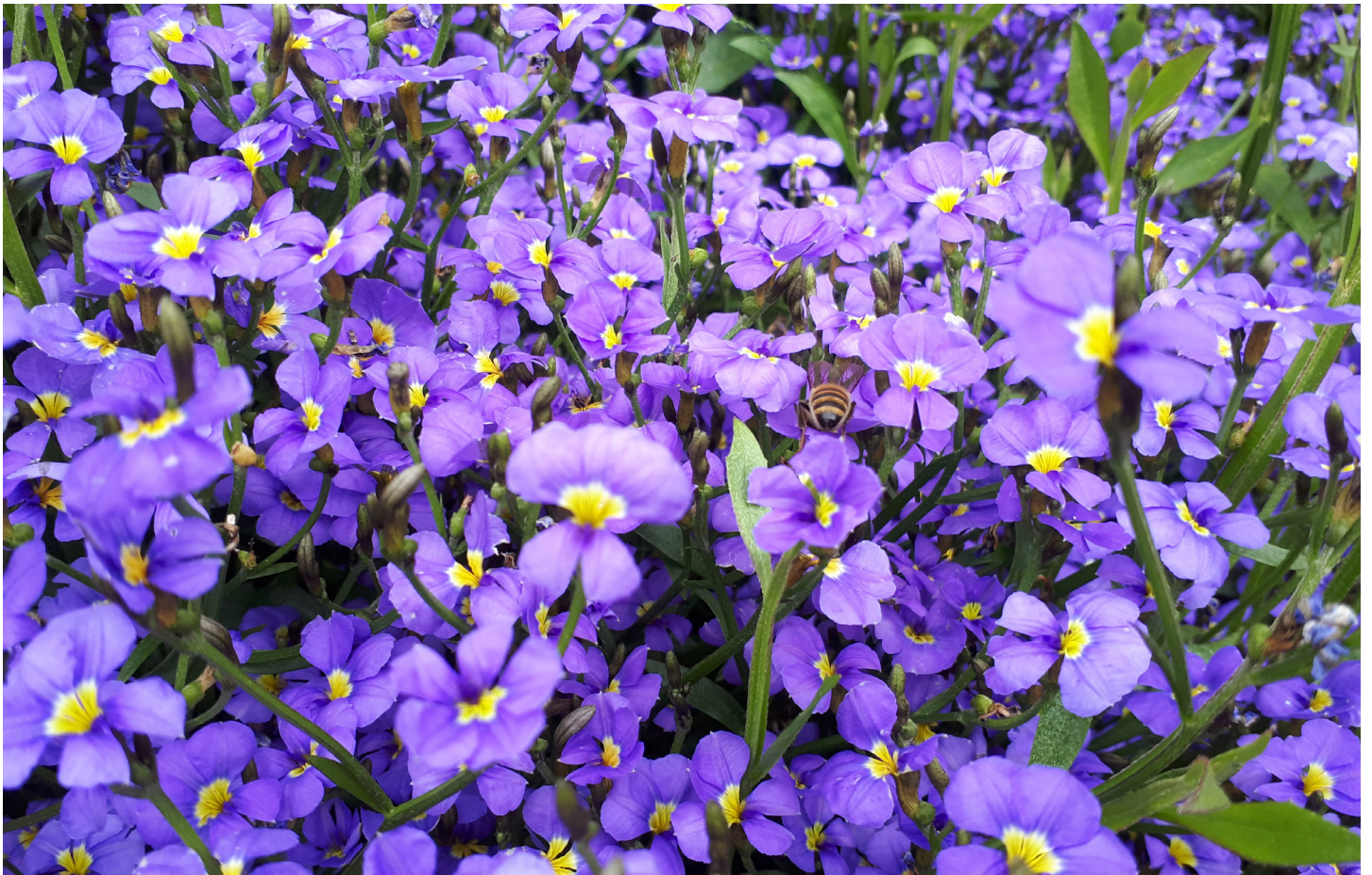
What I hadn't taken into account was the adjacent huge old remnant *Eucalyptus goniocalyx* which soon filled my beautiful soil with its feeder roots, with most of my plants eventually succumbing to the competition from this tree. Neglect due to family and work commitments contributed significantly and it wasn't too long before there were two remnants of my original planting – a *Melaleuca megacephala* and a *Dampiera alata* which had suckered strongly throughout the mound. On the other side of the tree, in an area that had no preparation other than digging over the soil to spade depth, I planted four or five what at the time was known as *Dampiera cuneata* which I guess now is a form of *Dampiera linearis* but not one that is grown any more to my knowledge. For a few years these spread readily but this bed was in deeper shade and without the benefit of the imported soil depth, they eventually died out.



Dampiera alata with the dreaded *Eucalyptus goniocalyx* top right. The central *Persoonia pinifolia* is self sown

The *Dampiera alata* on the other hand went from strength to strength and today from just a struck cutting in a tube, I have a bank of intense blue in spring, approximately 6 x 4 metres in area. At one point in time I attempted to clear a sizeable patch out with a view to resurrect my Western

Australian bed but found the suckering root system too deep to eliminate and gave up on that venture. The *Melaleuca* is now just a dead framework under a spreading *Hardenbergia violacea* 'Carpet Royale', just as vigorous as the *Dampiera alata*, which has replaced the *Dampiera linearis*.



Dampiera alata

Text and photos - Royce Raleigh

Thanks to Bruce for his lovely photos. I just had to add our experience with *Dampiera alata*. In our drier climate some of our suckering *Dampieras* progress from the garden beds to our mulched paths, which are much lower than the garden beds and hold more moisture. *Dampiera alata* is the most successful at making the transition!



This plant has migrated from the garden bed into the path and is now covering over 10m of the path. It makes a great display in the spring and it gets whipper snipped after flowering. This is the result as it all reshoots.



Dampiera new growth – help or hindrance in identifying species?

Text and photos - Royce Raleigh

I remember many years ago Rodger Elliot commenting on *Dampiera* when writing for his Encyclopedia, the difficulty he had of identifying species from dried herbarium specimens. As many of the specimens were very old, a number looked similar and there was little or no dried material of juvenile growth that may have helped.

Burst of new growth after flowering.



How often have we looked at specimens in the wild and noticed that some species have juvenile foliage almost identical to adult foliage, while another species has juvenile foliage totally different from mature foliage. Note below the difference between the adult and suckers.



Would looking at the juvenile foliage of these species help at all in better identification? Should we ensure an effort to include where possible juvenile foliage of species?

Dampiera linearis is a highly variable species, both in the nurseries and noted by those of us who grow it. It is hard to believe that all these forms are the one species.

Dampiera linearis might be an ideal group to examine more closely.

Should we be looking much more closely at species that are referred to in the literature as “variable” or “very variable”?

If juvenile foliage can help in identification of species, then we should all be making sure that we can photograph some juvenile foliage in building up a portfolio of shots of a species. Let me know your thoughts and experiences.

Another comment I would make on much of the literature currently available is that there is not enough information on “similar species”. Sometimes when similar species are listed there is often insufficient information on just what are the differences that separate “similar species”.



Dampiera stricta

Text and photos - Maree Goods

In November Graham and I had to make a trip to Bateman's Bay, NSW. On our way home we travelled north to Tomerong then west across the Great Dividing Range towards Nerriga. We stopped to photograph some lovely pink Kunzea which was in full flower. To my delight Graham came across *Dampiera stricta*. Whilst it may be common in the area for us it was a first.



A Goodeniaceae Working Group Update: Taxonomic resolution of new species allied to *Goodenia pinnatifida* using molecules and morphology

By Dr Kelly Shepherd, Western Australian Herbarium, Department of Biodiversity, Conservation & Attractions,
17 Dick Perry Ave, Kensington, WA 6151

As mentioned in the last newsletter, the Goodeniaceae Working Group* is currently undertaking a detailed taxonomic study of *Goodenia pinnatifida* and allied species. We believe there are several potentially new species in this group, and we want to use molecular methods to help resolve this complex. We are also working towards producing an updated phylogeny (a 'tree' that depicts the history of the evolution of a group) of *Dampiera*; information that will help us understand the taxonomic relationships between known species and potentially new species that are not yet formally recognised as distinct.



One of the new species in the *Goodenia pinnatifida* complex currently mistakenly identified as *Goodenia mimuloides* that needs a new name.
Photo: Kelly Shepherd.

To do this some keen undergraduate students will begin the DNA sequencing work in Dr Rachel Jabaily's lab at Colorado College in the US in early January. They will be using leaf samples collected during field work this spring supplemented with material taken from herbarium specimens, which we will send in the coming weeks. From mid-February I plan to visit Rachel for a month so we can work together with her students to analyse their results. Once I return to Perth these data will inform a detailed morphological study that will hopefully result in the recognition and description of several new species!

In order to support this work, I undertook some field work this spring. I was accompanied by Philipp Hühn, a PhD student from Mainz University in Germany that I am co-supervising. Phil is developing new DNA methods to help resolve the generic boundaries in the Australian salt bush family Chenopodiaceae and was keen to do some field work so, he joined me and my friend and colleague Dr Wendy Thompson on a hunt for chenopods and fan-flowers.



What are the evolutionary relationships between some of the more unusual species of *Dampiera* such as *D. wellsiana* (top) and *D. luteiflora* (below), which literally translates as 'golden yellow flower'.



Philipp Hühn and Kelly Shepherd collecting *Maireana brevifolia*.
Photo: Wendy Thompson.



Wendy Thompson securing our swags before heading off for the day.
Photo: Kelly Shepherd.

We had a fantastic time travelling north from Perth collecting samples at various sites including Mt Gibson Sanctuary, Charles Darwin Reserve (White Wells Station) and Ninghan Station, before heading eastwards through Southern Cross to Jaurdi Station, and then Kalgoorlie. Finally covering some remote country east of Norseman before returning home.

I am looking forward to seeing if our DNA results will help shed some much-needed light on this complicated taxonomic conundrum. Stay tuned!



A sea of yellow flowers... a potentially new species of *Goodenia* that is currently only known from Mt Gibson Sanctuary. Photo: Kelly Shepherd



I spy a *Goodenia* on a wall in Kalgoorlie! Photo: Kelly Shepherd.

*Neville Walsh¹, Brendan Lepschi², Rachel Jabaily³ and Kelly Shepherd^{4,5}

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The above report is from Dr Kelly Shepherd. A Grant of \$5,000 was given to Kelly and her group from the profits of the 12th FJC Rogers Seminar for a *Goodenia pinnatifida* Project. It is great to see that the money is being put to good use.

Thank you Kelly for a wonderful update.

News from Members

Kevin Sparrow

30 October 2019

My Scaevolas are going great, attached are some photos you can use. These are all growing in terracotta pots.

Leaf cuttings were a waste of time, all died!!



Scaevola aemula.



Scaevola aemula Pink Fairies.



Scaevola striata.



Scaevola globulifera.



Scaevola poracarya.

Marj Seaton

31 October 2019

I'm attaching three photos of plants in my garden.



Coopernookia georgei - bought at FJC Rogers, doing well in a narrow bed next to our pool in full sun and not much moisture. I've taken a few cuttings which are still alive.



Goodenia albiflora - put into a big pot with some egg shells as I noted that it comes from SA where the soil is more alkaline. A couple of branches died off, but others are doing fine and flowering. Gets morning sun only.



Goodenia ovata "Lighten up" bought from Bunnings. It struggled for some months. I put it in a pot until it was happy again, then replanted into a semi shaded spot where it seems to be much happier. currently about 40cm high.

Maree Goods

10 December 2019

The Mt Arapiles form of *Goodenia ovata*. A very robust upright form which is doing extremely well in our garden. We also have the Grampians form which is a more sprawling plant and even though it is vigorous certainly not as much as the Mt Arapiles form.



Goodeniaceae of the Kimberley

Text and photos - Graham & Maree Goods

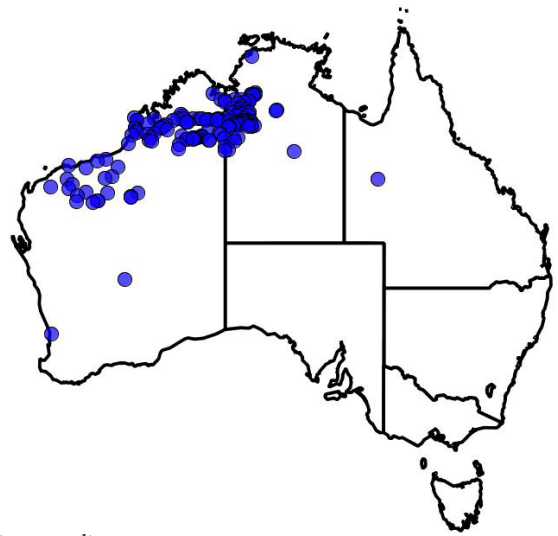
Maps: Courtesy of Australian Virtual Herbarium

Graham and I were fortunate to visit the Kimberley from early May to mid July of this year. It was extremely dry (below half of their annual rainfall during the wet season) and we were not expecting to see very much in flower. It was surprising what we did see including some of species of Goodeniaceae.

Goodenia scaevolina

The first species we found was *Goodenia scaevolina*. This was at the entrance to the Zebra Mine Campground on the Duncan Road which was a few kilometres east of the Northern Territory/Western Australia border. It was covered in red dust and did not photograph very well at all.

The next time we saw this same species was beside the walking path into the Mini Palm's Gorge in the Bungle Bungles. Amazingly it was quite fresh with a few flowers on it and not covered in red dust.



Goodenia scaevolina



Goodenia scaevolina - shrub.



Goodenia scaevolina - flower and buds.

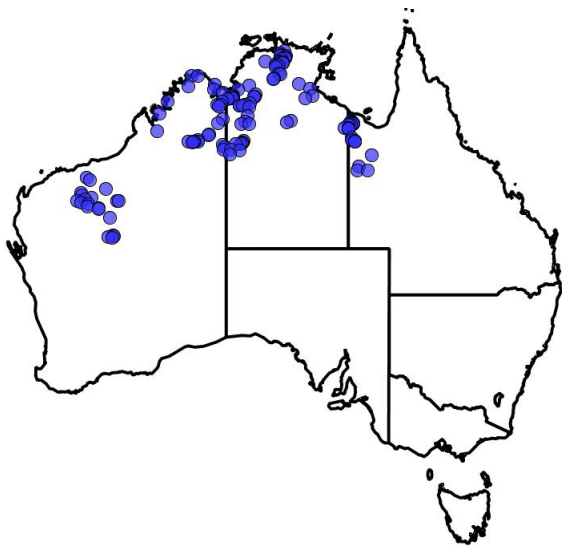
Scaevola browniana

Mirima National Park overlooks the township of Kununarra. We stayed at a caravan park next to the park so it was easy to go walking in Mirima NP. It did not take long for us to find *Scaevola browniana*. Unfortunately it was shaded by an outcrop so not easy to take good photos. There were several plants all in excellent condition. Fortunately there were still a few flowers.

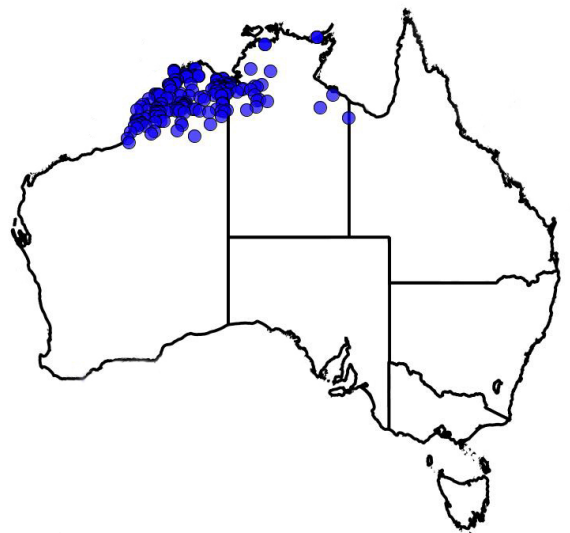


Scaevola browniana - flower and buds.

Left: *Scaevola browniana* - shrubs.



Scaevola browniana



Goodenia sepalosa

Goodenia sepalosa

We saw this species on three occasions. it seem to always be growing in amongst other plants mainly grasses. It is easy to identify because of the hairy leaves and stems. A good specimen could look quite striking.



Goodenia sepalosa. A small plant.



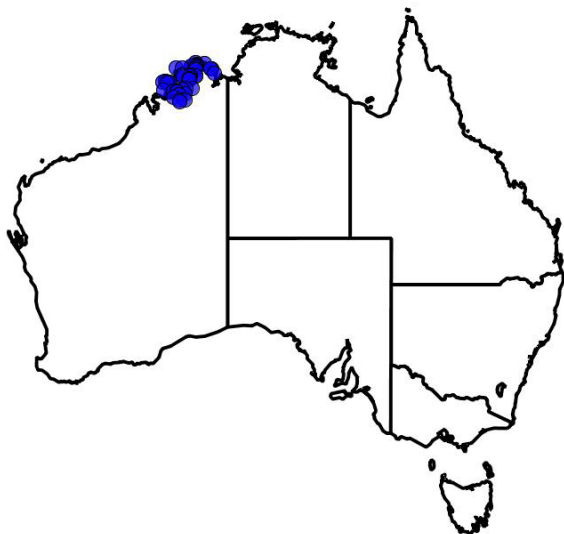
Goodenia sepalosa, showing the hairs on the leaves and a flower.



Goodenia sepalosa. A small plant.

Goodenia arachnoidea

We found this species beside the Kalumburu-McGowans Road, north of Kalumburu. It was difficult to find a healthy specimen as most were on the dry side.



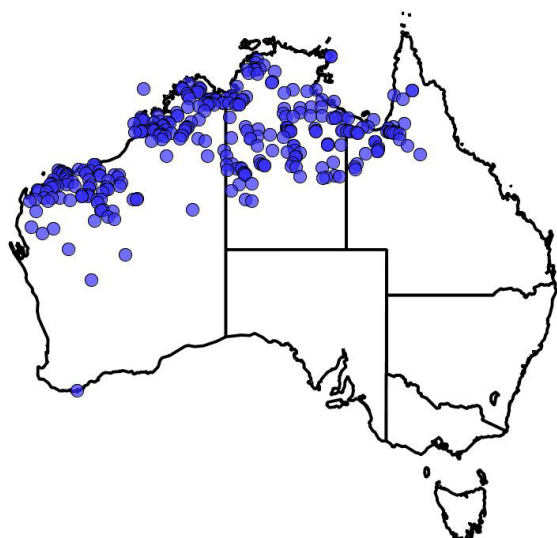
Goodenia arachnoidea. Showing backside of flower and the hairs.

Goodenia arachnoidea



Goodenia lamprosperma

We were fortunate to find an excellent specimen beside Cadjeput Waterhole on Mornington Wildlife Station owned by Australian Wildlife Conservancy.



Goodenia lamprosperma





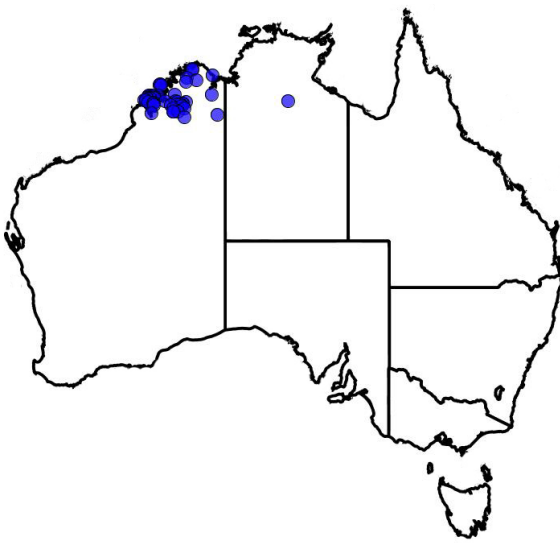
Goodenia lamprosperma. Flower.



Goodenia lamprosperma. Showing the stigma with the indusium.

Scaevola macrostachya

Graham was busy photographing Red-collared Lorikeets feeding amongst some flowering *Corymbia* when he called me to say there were several plants of a white flowering *Goodenia*. It turned out to be *Scaevola macrostachya*. It was quite common in woodland north of Kalumburu.



Scaevola macrostachya



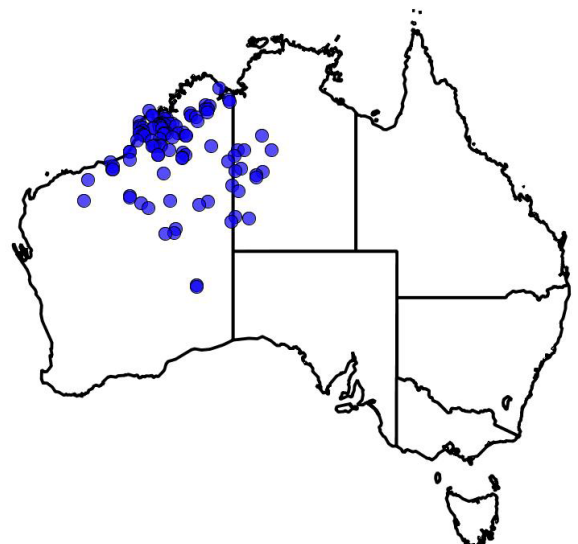
Scaevola macrostachya. Leaves and flowers.

Velleia panduriformis

Velleia panduriformis is a common plant on Cape Leveque. It grows in pindan country (red-soil country) as well as open woodland and shrubland. We found several colonies of *Velleia panduriformis*.



Left: Seed of *Velleia panduriformis*.



Above: Location map.



Velleia panduriformis - flowers, buds and leaf.



Velleia panduriformis - shrub.

WA Trip

Text and photos - Royce & Jeanne Raleigh

During August of this year Jeanne & I had a wonderful trip to WA. While we were too early to see the flush of flowers that one sees in a good season in the west, we did see many plants that we had not seen in the wild before.

I will just show you some of the Dampieras that were making a show in August.

We saw many Dampieras which we did not know, and we saw many that were not yet in flower.

If some of them are known to you and you can indicate to us what you think they are, we would be most grateful.



This was the first Dampiera we saw on the Woodland Trail (Norseman to Hyden near the Breakaways) *D. juncea?* August 5th.



Above near Lake King August 6th .



Near Wongan Hills August 10th.



Could this be *Dampiera lindleyi*?



This one was in Kalbarri National Park. August 13th.



East of Nabawa August 14th. How much longer can this plant hang on? A similar situation is playing out in many places in WA. These plants were all on roadsides that were very vulnerable to being overrun by weeds within the next year or so.



Dampiera altissima? In the same area we saw the following growing with *Dampiera alata*.



Probably a form of *Dampiera linearis*?



In the Carnamagh area we saw these two August 15th.



August 17th near the Talgomine Reserve, north of Merredin, we were delighted to find *Dampiera luteiflora* and others.



Although it was not in flower we have since managed to obtain a plant, and this is it in flower – the only all yellow *Dampiera*.



Others in the Talgomine Reserve area.





August 20th. At Narrogin *Dampiera eriocephala* growing almost on solid rock in Fox's Lair Reserve.



Probably *Dampiera juncea*.

From Hyden we did another trip along the Norseman road towards the Breakaways to have a look at areas we had not seen. August 22nd we saw these two.



August 18th. Near Bruce Rock and Kwolyin we saw another interesting *Dampiera* growing with *Dampiera juncea*.



August 27th further south near Bremer Bay growing with *Dampiera juncea* was this one



September 1st on the way from Esperance to Norseman this plant really stood out.



This was near Hopetoun on August 28th.



At Norseman we found many dead Dampieras at the lookout. Although we could not find any fresh shoots, we hope that many of these will eventually reshoot.



August 30th from Hopetoun heading towards Esperance along Jerdacuttup Road this was growing with *Dampiera fasciculata*.

It is so frustrating that it has become so difficult to obtain these plants for our gardens, when many Dampieras grow so well for many of us in eastern Australia. At Wartook we are very slowly building up our number of species, but still have many that we have yet to positively identify.