



ISSN: 0728-151X

Date January 2012

DRYANDRA STUDY GROUP NEWSLETTER No. 62

AUSTRALIAN NATIVE PLANTS SOCIETY (AUSTRALIA)



Dryandra viscida. See page 10.

Margaret Pieroni

Contents

Page 3—Looking back (cont)

Page 7—News from Denmark

Page 10—A *Dryandra* in Queensland

Page 11—Dryandras and the weather

Page 12—Honeyeaters and dryandras

DRYANDRA STUDY GROUP

LEADER

Mrs. Margaret Pieroni
22 Ravenhill Heights
DENMARK
WA 6333
Email: mpieroni@bigpond.com
Phone: (08) 9848 3331

NEWSLETTER EDITOR

Mr. Tony Cavanagh
16 Woodlands Drive
OCEAN GROVE
VIC. 3226
Email: tonycav40@hotmail.com
Phone: (03) 5255 1180

Hello and welcome to our new look Newsletter. I hope that those of you who are receiving it by email for the first time enjoy the ability to read it on your computer and also to look at the colour pictures on the screen. Anyone else who would like to receive future issues by email, please send Margaret your email address.

Just getting to a final printable copy was an interesting business. I have always worked in Microsoft Word but to produce our cover, I had to use Microsoft Publisher to place pictures and text in the correct place on the page. The rest of the document was done in Word but of course, I had to join the cover page (Publisher) to a Word document to produce the finished document. We did this by converting both documents to Pdf and then “merging” or “combining” then in a program called Pdf converter. It worked but I have to say I had help along the way. Hartley Tobin sent me information about how he produces the Newsletter for his woodworker’s club, essentially similar to what I outlined above. My daughter Fiona is a whizz with these things and found me Pdf converter and walked me through the stages. David Lightfoot reckoned it would be a lot easier with a Mac so I might try that next time as my wife has one. Anyway, we hope that you enjoy it but please send any comments or suggestions for improvements to me.

Once again, Margaret has provided the bulk of the material for the Newsletter and it is great that she has over the years kept meticulous notes about places visited and people and plants seen. I would dearly love to have other people’s stories and accounts of trips, progress in their gardens, favourite plants, successes and failures – all are of interest for what after all is your newsletter. I have chosen illustrations from our archive that seemed relevant to the text but sometimes we do not have a picture, so that is another area in which people can help. I published a list of “missing” taxa in NL 59 and Margaret is filling gaps as she can but I would appreciate any other picture that you have. A case was Margaret’s account in “Looking back” of the naming of *D. epimicta*. I just don’t have an archive picture. The worry that keeps surfacing when reading Margaret’s accounts of her travels is the number of times she mentions that plants are no longer there because they were destroyed in road widening or similar activities. It might be an idea to get to some of these areas if you are in WA before everything disappears! I give an update on the status of my garden and the difficulties I am experiencing in establishing new plants among old. Has anyone else had similar problems and, more importantly, do they have suggestions or solutions? Margaret sent me an article about honeyeaters and dryandras which confirms some of my observations in my own garden on the pecking order of birds and the devastating effect of noisy miners when they chase everything else out. I also give a brief account of a trip to Myall Park in Queensland where we saw *D. arborea* growing happily among the grevilleas. Myall Park is also the home of probably one of the best known Australian plants, *Grevillea* “Robyn Gordon”. The original plant is nearly 50 years old and still healthy so I couldn’t resist putting in a picture of an inflorescence, the first non – *Dryandra* in our Newsletter. I nearly put in one of the red flowering gums but thought that that was overdoing things.

Please come back with any suggestions or comments or, better still, a couple of articles for the Newsletter!

Happy *Dryandra* growing

Looking Back (continued)

Continuing the correspondence from Margaret Pieroni, then living in Perth to Keith Alcock Study Group leader, in Victoria. Updates of names and other comments are in italics, in brackets.

From a letter dated 19/8/86

I returned from a weekend at Mukinbudin yesterday to find the three lots of slides, most of which were taken on the trip to Eneabba with Alex and Elizabeth (*George*). I was very anxious to see them because when I was packing to go, I dropped the camera, only a short distance onto the carpet and though it didn't seem to be harmed, the exposure meter wasn't working properly when I was about to take my first photos.

I assumed that the batteries were flat and had to guess the settings for one and a half days until I could get fresh batteries in Three Springs. Once again the readings were the same so all of the exposures were guess-work. When I got back to Perth I took the camera to the store and the woman tested the camera with a different lens, which worked and when she replaced my lens it worked as well and has been doing so ever since. The story ended happily, though. When I went through the slides I found that only one was too dark. The first two shots were overlapping so I obviously did something to the camera when I dropped it.

We had a very successful and enjoyable trip, spending a day and a half with Alex and Elizabeth and looking at dryandras on the way up to Three Springs and back. Alex rang from Manmanning on the Monday night to confirm our meeting place and time for the next day and he couldn't wait to tell me they'd seen IT (*D. idiogenes*), starting to flower, (*on their way from Canberra on a dryandra collecting trip*).

I collected a piece of sp. B (*D. echinata*), from the Moore River National Park boundary site and we (*Shirley Loney was with me*) drove along West Mogumber Road to look for it where I'd seen plants last December. At about two km we were stopped by water over the road but discovered some plants growing there anyway. Within a few metres we found plants with a large

variation in leaf width and colour. Same old story! (*I had noticed the variations in other populations and had theorised that *D. echinata* is a stable hybrid of *D. polycephala* and *D. hewardiana*. They both occur near or within the range of *D. echinata*.)*

We turned off Brand Highway at the Marchagee Track and I photographed the plant of sp. C, (*D. glauca*) on the corner. I ran short of film (Fuji is unobtainable in the country) before the end of the trip so I will have to get several duplicates for you. (*I was taking two shots of each subject so as to have one to send to Keith and one to keep myself. It was cheaper than getting duplicates which weren't always of very good quality, anyway*).



***D. glauca* flowering at Badgingarra in August, Margaret Pieroni**

We met Alex and Elizabeth at the corner of Tootbardi and Coorow-Greenhead Roads, (Alexander Morrison National Park) at lunch time. We were there in plenty of time to find a couple of good flowering specimens of no 23 (aff. *nivea*), (*D. cypholoba*) and *D. subulata* beginning to open. I failed to find the 'pteridifolia' form (*D. pteridifolia subsp. vernalis*) that I photographed last year but Alex found several, in from the Coorow Rd and then we found quite a few more. They were in bud and Alex said it had never been collected in flower. He was interested to see my slide – I had my collection with me.

D. aff. conferta plants (*D. platycarpa*) were not in flower except for a few little ones with old flowers near the base. We drove up Willis Road (*now Garibaldi Willis Rd*) and stopped to photograph some large plants of *D. speciosa*,

(*subsp. macrocarpa*) about half way, then further on we stopped at a stand of sp. I (*D. stricta*), just beginning to flower and found *D. nobilis* (Don Williams form), as well (*D. nobilis subsp. fragrans*). The plants were taller than Don's and had a lot of dead leaves, as you can see. The flowers, however are quite lovely. The perianth is purple like the Stirlings *D. drummondii* (*subsp. drummondii*) though it isn't so obvious in the slide. Alex cut a flower head in half lengthwise and the colour was easy to see. He did the same with a *D. speciosa* and photographed them.

It was getting late so we arranged to meet at Three Springs the next morning and Shirley and I spent the night at Eneabba. We left early and stopped a few times on the Eneabba – Three Springs road which was lined with lovely wildflowers. It is an extra good year – there's been plenty rain almost everywhere. We stopped at a spot in an area of white sand where we found a 'nivea' type (*D. lindleyana subsp. media*) and, further on at a typical dryandra, laterite hill where we found, growing in what looked like solid rock a *D. fraseri* only about 10cm tall and 60cm wide with the bluest of blue leaves. (*D. fraseri var. crebra*). It was growing with other low shrubs in Proteaceae, including *D. kippistiana*.

We were running late before we noticed a large shrub with bright yellow flowers that I thought was sp. H, (*D. borealis subsp. elatior*) at 12 km from Three Springs. I also saw a tall, cypress-like shrub that looked a bit like a dryandra but I thought it was perhaps a hakea or petrophile/isopogon.

Alex thought it would be worthwhile to go back to the spot to check the sp. H. I wanted to try to get better shots of this one than I'd taken in the rain, near Arrino, last year. It was sp. H and when we climbed through a fence, we found several more beautiful plants. Among them was an enormous *D. fraseri*, almost 2m high and about 3m in diameter. (*D. fraseri var. oxycedra*). Alex found that pretty surprising but imagine our amazement to discover, when we stopped to look at the tall shrub I'd seen earlier (Alex had also noticed it when they drove past it) was the same *D. fraseri*.

What's more, opposite it, in a blue metal dump in a disused gravel pit, we found more of them,

averaging from 3 to 4 m tall with one giant about 5m. I photographed one of the ones about 4m tall with Shirley standing next to it. It has a trunk about 15cm in diameter. The tallest one is in the background, too hidden by other trees for a good photo of it, by itself.

We drove westwards along Nebru Rd and , at 11km west of Three Springs found the aff. *hewardiana*. It's probably a wide-leaf form of *D. hewardiana* but it has a different 'look' to the normal one. (*D. trifontinalis*). Further on, we found it again growing with sp. H, the giant *D. fraseri* and a normal *D. fraseri*. We drove north on Arrino South Rd and then west on Hydraulic. We stopped for lunch at a white - sandy spot before it started to rain and found the miniature blue-leaf *D. fraseri* again. The plants were not quite as small and the leaves not as blue as the ones on the laterite but they are lovely plants. We looked at a 'nivea' form, probably the one I photographed at Brown's, last year (*if so, D. stenoprion*) and aff. *conferta* (*D. platycarpa*) on Bunney Rd-Skipper Rd. junction where we found more of the mini, blue-leaf *D. fraseri* including a beautiful, pink-flowered one. (*D. fraseri var. crebra*).

Alex was looking for *D. tortifolia*. We stopped several times going south on Brand Highway from Eneabba but didn't find it until we got to a parking bay, 11km south of Eneabba, on the south side of the road. This is a favourite verticordia spot, too where *V. aff. nitens* (*V. aurea*) grows, among others. (*One of the others is V. argentea – gold and silver!*) *D. tortifolia* was not yet flowering.

On the way home, the next day, Shirley and I stopped at the 'Dryandra Paradise', south of New Norcia. (*Recently destroyed for road widening as I have reported*). It certainly is a spectacular sight. The *D. nobilis* (*subsp. nobilis*) were covered with flowers and the mound *niveas*, (*D. nivea subsp. nivea*) as well. The flowers were different colours on different plants – from beige to yellow, orange and red. I found the sp. B (*D. echinata*) and collected it for Alex to compare with the ones from the first two locations. It's leaves are certainly bigger – more robust and the buds were more developed, though a long way from opening.

Alex and Elizabeth were both excited about IT (*D. idiogenes*), which apparently is very attractive –red flowers with a cream base, and they'd also found an aff. *ferruginea* (*D. epimicta*), near Kulin with very large buds that Alex wants me to collect. I'm planning a trip on 3rd and 4th September to take in those two and *D. brownii* and *D. arctotidis*, possibly *D. serra* and the Mt. Barker one (*D. porrecta*). Alex thinks that IT will still be flowering late in September but he's not sure of the Kulin one. Not many of the 20 or so plants had any buds but they were well developed. He has given me a detailed map and has tied some ribbon on the fence near the plants as they are prostrate and difficult to locate.



D. ideogenes in cultivation in Victoria, Tony Cavanagh

I forgot to mention the *D. fraseri* (*var. fraseri*) at the New Norcia spot. They were the normal form but lovely, big plants with lots of flowers. Further south, *D. polycephala* was a spectacular sight, as well.

When Alex saw the photo of the plant that I photographed north of Geraldton he said it was probably *D. fraseri*. After all the variations that we saw lately I would have to agree though it looked a bit different. It doesn't have prominent bracts so I'm afraid it isn't sp. H, as you thought. I remember it as being the size of *D. fraseri*. I would think, however, that the size of the flower heads in proportion to the leaves, are smaller than 'normal' *D. fraseri*. I wasn't keeping records in those days and we found it when we stopped for a few minutes on the first day of a six weeks trip to the Kimberley and Northern Territory, (July-August 1983), somewhere north of Geraldton and also near the Kalbarri turn-off. (*D. fraseri* *var. ashbyi*)

I hope your campaign against the dreaded *Phytophthora* is succeeding. I'm having my own battle to keep my seedlings going. I just went out to check on them and found two of the remaining *D. foliosissima* eaten off. I spray regularly with pyrethrum and have even resorted to a strong systemic spray, earlier. The culprits seem to be tiny, almost transparent looper caterpillars that eat through the stems at ground level, during the night. Only when I spray, am I able to see them when they are writhing on top of the soil. I have left: 1 *D. ferruginea* (*subsp. tutanningensis*), 1 *arctotidis*, 2 sp. D (*D. viscida*), 1 sp. 2, (*D. lepidorhiza*), a couple each of *squarrosa*, mound *nivea* (*D. nivea* *subsp. nivea*), 2 pink *quercifolia* and a few self-sown *formosa* that I potted up from the garden, where it used to grow.

One of the Wildflower Society members brought in a dryandra to our meeting last week. It was 'pteridifolia' form no. 4 (*D. shanklandiorum*). She found it somewhere between Wongan Hills and Cadoux. Alex had told me that it has large flowers and it certainly has! I was hoping to be able to look for it, last Friday, on my way to Muckinbudin. It would have meant going out of my way and I didn't have time, unfortunately. I did note the location when I photographed the plants that I was shown, north-west of Koorda. I kept my eye out for it between Koorda and Bencubbin but didn't spot it. I did manage to get to Charles Gardner Reserve, however and I photographed *D. speciosa* (*subsp. speciosa*), that were still flowering and found plants of *D. horrida*. There were no flowers on it but I was pleased to locate it for a future trip. (*It flowers in autumn*).



D. shanklandiorum, showing the large flowerheads, Tony Cavanagh

I was invited to the one year old Muckinbudin branch (of the Wildflower Soc.) to give a

weekend workshop on Botanical Illustration for a herbarium they are starting. I showed some of my dryandra slides on the Saturday night. They were very appreciative and some were inspired to say they'd like to grow some dryandras. There are none around there, though there's some beautiful sandplain areas with magnificent *Hakea coriacea*, *Grevillea excelsior* etc. The Muckinbudin people know of *D. arborea* at Mt. Jackson and the Die Hardy Ranges and I've drawn their locations on my maps. They took me for a picnic to Chidarcooping Reserve on the Sunday. It consists mainly of granite outcrops and features *Eucalyptus caesia*, The big one, 'Silver Princess' and *E. crucis* as well as many other interesting plants.

Have you had any luck with getting more information on the 'cactus' dryandra? It would be marvellous to rediscover that. I wondered whether you would like to come here on the Friday of the long weekend (26th Sept), stay the night and, if we left before daylight, we could drive down to the Stirlings, via Woodanilling, Mt. Barker etc. and meet the others (*Wildflower Soc. members*), at the gravel pit for the rest of the day's excursion. I hope you will be able to make the trip and I'm looking forward to seeing some more dryandras later on when I join the rest of the members on Kevin's bus trip. Neville Marchant and Greg Keighery have both agreed to talk and show slides on the Stirlings' flora during the weekend. We have booked the Community Hall at the Caravan Park for our post-excursion gatherings and kitchen and dining requirements. We will be able to find you somewhere to sleep in the camp.

We will be leaving on the bus on Monday for somewhere north of the Fitzgerald River National Park to camp for the night and the next day driving through the park to Hopetoun. We will be returning to Perth on the next Friday after visiting Peak Charles, Frank Hann National Park and Harrismith – sp. J (*D. meganotia*).

I'd like to get to Wongan Hills for *D. comosa* and *D. pulchella*, sometime in October, as well but I'm probably trying to do too much. There are still quite a few verticordias to paint and it will be at least two more years before I'll be able to do them all. Alex and Elizabeth are coming back in October-November for their holidays and

they'll be collecting some verticordias for me to paint.

From a letter dated 6/9/86...

I have just spoken to Alex who phoned me as soon as his dryandra specimens arrived. I gave them to one of the botanists at the Herbarium at about 2.30 yesterday, so Alex had them still fresh and was about to photograph the one he asked me to collect for him. I'm afraid yours won't be as fresh as I couldn't get them packed soon enough and the weekend has intervened. I hope there is still some colour in sp. 12 'Burngup Road', a.k.a. IT. (*D. idiogenes*). It really is beautiful and I hope my slides do it justice.

But to begin at the beginning....On Wednesday morning, Shirley and I left here before daylight and we drove down Albany Highway. It was raining very heavily on and off but, except for Thursday afternoon, the sun was shining at every dryandra stop, so I was very lucky with the light for photographs. We stopped at the parking area north of Mt. Barker to collect the plant that I sent you a leaf of, last year. I still think it matches your 'pteridifolia' form no. 5 that you published the leaf print of, (*in newsletter 12, December 1984*). It has underground stems similar to the Woodanilling one (*D. lepidorhiza*). There were no buds or flowers on the three small plants but where the flowers had fallen off an old one, there were the curled- back bracts and velvety floral bracts typical of 'pteridifolia' species. (*D. porrecta, which flowers in winter with underground flowers*).

Alex told me that *D. serra* was south of Mt. Barker on Albany Hwy so we drove south, looking for it before turning east towards Chester Pass Rd. We were well south of Mt. Barker - 27km, before we spotted it on top of a low cutting. It was flowering nicely so we had timed it very well. (*D. serra grows naturally here, on my Denmark property*).

We back-tracked for a bit and took Jackson Rd. I called in to Morande nursery, hoping to see Max Luscombe to get more information about the 'Morande' plant, but he wasn't there. He has a nursery near Perth now so I will have to go there or ring him. My impression, however, is that he doesn't have a record of its location. (*D. ferruginea subsp. pumila*)

We arrived at the Stirlings in plenty of time to look for *D. arctotidis*, south of the range. It was in flower and we also found the prostrate *D. pteridifolia* (*D. blechnifolia*), in flower.

We had time to go to Mt. Trio because I wanted to look at the floral leaves of the *D. armata* I'd photographed last year to compare with the leaf prints of sp.E (*D. hirsuta*). I found some near where I'd taken the slides and the leaves do match so I'm satisfied that I have sp. E.

On Thursday, we cut across to the Hassell Hwy. through South Stirling. Everywhere I've been, this year, the wildflowers are magnificent. The rainfall seems to have been good, everywhere and we saw many road verges splashed with red *Lechenaultia formosa* and lots of beautiful wattles, especially *Acacia drummondii*, in the Stirlings. We found *D. arctotidis* and *D. brownii* in flower and also *D. mucronulata* (*subsp. mucronulata*), in flower, at the same spot. They were very small plants with golden yellow bracts rather than pink.

On to South Burngup Rd. and IT was at its peak of flowering. It has lovely flowers, as you can see but they have an unpleasant smell. We spent the next few kilometres getting the blowflies out of the car. The small bush *D. ferruginea* was in flower at the same place (*subsp. chelomacarpa*). Also there are: aff. *cirsioides* (*D. xylothemelia*), a prostrate *D. pteridifolia* (*subsp. inretita*) and *D. erythrocephala*.

We headed for Kulin to Hopkins Reserve, where I had to look for the *D. aff. ferruginea/proteoides* which Alex and Elizabeth saw in bud a month earlier. After quite a search at the spot Alex had marked for me, we found one plant of the new species, in flower. There were about 20 plants but very few had flowers and the rest were still in bud. The leaves are similar to those of *D. proteoides*. The large, hairy bracts were almost completely closed but I could see that the flowers inside, were open. The one I sent to Alex still has some flowers on the flower head which are unopened. I decided that perhaps the bracts never do open out and Alex agrees with me. If we thought that IT smells bad, this one positively stinks. Every time I had to open the boot of the car the stench was horrible. I wouldn't be surprised if blowflies are the pollinators.

Something, presumably, has to force its way through the opening at the tips of the bracts. Whatever it is, it's efficient – two of the old flower heads had 32 follicles in them. It certainly is an odd specimen, I'm sure you'll agree. (*D. epimicta* – the name means 'on the nose').

On the way home on Friday, we called in at the Harrismith reserve, again. *D. cirsioides* was in flower and the mound *D. nivea* (*subsp. nivea*). I took a photo of 6 different species growing together. We counted 9 in all: *D. cirsioides*, *D. cynaroides*, *D. ferruginea* (*subsp. ferruginea*), *D. aff. conferta* (*D. rufistylis*), *D. seneciifolia* (actually *D. fasciculata*), mound *nivea*, *D. vestita*, *D. pteridifolia* (mound) (*D. filifolia*) and *D. cuneata*.

We stopped at a laterite hill 7km east of Narrogin to find lots of *D. squarrosa* and some beautiful mound *D. nivea*. So the trip was very successful and we both enjoyed it very much. I not only found and photographed the dryandras we were looking for but others besides.

Alex told me you are going to Canberra to see his collection after your WA trip. Have you finalised your plans? I hope you will be able to spend some time here before you go on any collecting trips before we go to the Stirlings so that I can help you with some dryandra locations. I hope to be able to get away about 18th or 19th September to re-photograph sp. B (*D. echinata*), collect a 'pteridifolia' type for Alex (*D. pteridifolia subsp. vernalis* ?) and possibly a verticordia that Elizabeth says is early-flowering, that I still have to paint.

To be continued.

Margaret Pieroni 26/11/11

News from Denmark

At the end of August, my friend Julie and I set out for a trip to Eurardy Station to join a day's excursion, on the property, north of the Murchison River, adjoining Kalbarri National Park, which is owned by Bush Heritage Australia. The previous owner is a fellow Wildflower Society member who now lives in Albany. I have visited Eurardy several times in the past and have taken part in flora surveys both before and after it was taken over by Bush Heritage.

We knew that it would be too late for most dryandras and too early for the verticordias which are an outstanding feature of Eurardy. Julie's main interest are orchids and the trip didn't disappoint, in that regard. We saw the rare orchids that occur there as well as many others on the way.

It has been a very good year for the wildflowers – even the 'Everlastings', which many tourists equate with 'wildflowers' to the exclusion of anything else, were spectacular.

We broke the journey at Popanyinning, on the way north and coming back, thus avoiding the city of Perth. A couple of kilometres north of where we stay is a stand of *D. stuposa*, which always has a flower or two at any time of year, though the main flowering is in summer. This is where I first saw and photographed this beautiful species but the population is declining as the road cuts through the gravelly hill where they grow and the plants are being cleared for road works and a water pipeline.

Having taken photos of all of the dryandras, previously, with my Nikon, film camera, most of which were used in *The Dryandras*, I am now photographing them with my digital camera. Tony is preparing a disc with all of the taxa represented and eventually he will have a collection of images to illustrate the newsletter. I took photos of all of the dryandras we saw on the trip – just because I can! The old days of using film, running out of it in the middle of nowhere and having to wait for it to be processed and sometimes finding that photos you took at some place you may never have a chance to get back to, are thankfully, gone. I have included all of the trials and tribulations regarding the photographing I did while I was reporting my activities to Keith in my letters to remind myself and the readers of how it was, back then.

On the way to Popanyinning, we made a diversion via the Mt. Trio carpark, in the Stirling Ranges, where I was hoping to find *D. hirsuta* in flower. This time, we were lucky. We found several plants flowering, though it never seems to flower prolifically - and the weather was sunny. Almost all of the plants have flowers with a pretty, pink perianth – some deeper pink than others.

The roads from Toodyay west to the Brand Highway, the following day, provided an opportunity to photograph *D. squarrosa* and *D. sessilis* var. *sessilis*, both widespread species but flowering particularly well on gravelly hills in Wandoo woodland.

Just south of Red Gully Rd. on Brand Hwy, at one of our favourite wildflower and picnic spots we found *D. echinata* flowering well, though, as with all of the locations that I know of where it grows, it is disappearing. Since I wrote about it in my letters to Keith, many plants have been destroyed due mainly to road works and, though there hasn't been a great deal of disturbance at our stop, it is growing between a fire break and the highway and there are fewer plants. *D. carlinoides* was flowering here, as well.

Further north, south of Cataby, we called in to check on the plants of *D. kippistiana* var. *paenepeccata*, a rare plant that Fred Hort found there about 10 years ago. Unfortunately, the only plant that I could find is still covered in sooty mould and shows no signs of flowering, as it has been each time I have seen it. I photographed *D. hewardiana* at the same place, a gravel pit that is still in use.

After driving up to Yandin Hill, stopping to photograph a wonderful display of the Everlasting Daisy, *Rhodanthe manglesii*, several grevilleas and *Eucalyptus macrocarpa*, we were dismayed to find that the entire hill has been recently burned. I had hoped to find *D. lindleyana* subsp. *pollostata* and some grevilleas and hakeas, in flower to show Julie.

From Cataby, we went west, through Dandaragan and drove up Dandaragan Rd. towards Badgingarra. The roadsides at the northern end of the road were magnificent. Various genera in Proteaceae were flowering beautifully, in the gravelly soil and I photographed a particularly floriferous *D. glauca*, here.

It had been a while since I visited Hi-Vallee and it was wonderful to receive the usual warm welcome from Don and Joy and good to see that Joy has recovered well from her serious illness and to tour their marvellous property, again. It was Julie's first visit and she was delighted with

all the plants we saw, including some stunning Spider Orchids.

I was hoping to find the plants that I think might be *D. kippistiana* var. *paenepeccata*, in flower but the few plants we re-located weren't flowering. I think that this taxon might be a stable hybrid of *D. kippistiana* and *D. sclerophylla*, both of which were in flower, on the property. Other dryandras flowering at Hi-Vallee were: *D. carlinoides*, *D. sessilis* var. *flabellifolia* and the magnificent, sweet-scented *D. nobilis* subsp. *fragrans*.

The following day, it rained heavily almost all day, while we were driving on dirt roads between Hi-Vallee and Eneabba via Three Springs – not the most direct route! On Tootbardi Rd., east of Hi-Vallee, we looked for flowers on *D. serratuloides* subsp. *perissa*, a rare species, where numerous plants have appeared after a fire about 10 years ago. The bushes were still small but healthy looking. The few flowers we found were spoiled, for photography, by the rain.



D. serratuloides subsp. *perissa* photographed by Margaret on a much better day

I couldn't find any flowers on the various dryandras at the corner of Tootbardi and Coorow – Greenhead Roads, though we didn't spend much time there because of the rain. Further north, on Garibaldi Willis Rd. we stopped to photograph *D. stricta* in the rain, after waiting in vain for a break.

We stopped several times on Dookanooka Rd., south-west of Three Springs, in spite of the rain to photograph several grevilleas and *D. shuttleworthiana*. Here and at other locations where we saw it, some plants had a few late

flowers. The bracts around the flower heads were spread wide open and some were up-turned rather than hanging down and hidden within the bush. I wondered whether, at that time of year, they use that strategy to attract a different pollinator from the usual one (or ones).

Further on, I told Julie that just around the next corner was a good population of *D. borealis* subsp. *elator*. To my horror, there was a very big hole in the ground, instead – another gravel pit.

At Three Springs, we noticed a poster advertising a Wildflower Show and decided to have a look at it rather than drive around on slippery roads in the rain. I noticed that they had a specimen of *D. trifontinalis*, labelled as *D. borealis*. I pointed this out and explained the



D. trifontinalis at Three Springs, Margaret Pieroni

meaning of the name which means three springs, and how this species and two others, *D. borealis* subsp. *elator* and *D. fraseri* var. *oxycedra* are confined to the area and are being lost to gravel extraction. Julie was able to identify the orchids they had on display and pretty soon we were invited to return, next year to help with collecting and identifying specimens – accommodation provided. As the organisers are a group of very enthusiastic young women, we thought it would be good to support them. I would like to set up a display featuring the

'Three Springs Three', as I call the local dryandras. Only *D. trifontinalis* is still flowering, at that time of year, so I will need to get good photos of the other two. We found *D. trifontinalis* in flower on Nebru Rd., as we headed towards Eneabba to stay at Western Flora Caravan Park, owned by old friends, Allan and Lorraine Tinker.

Leaving there, before daylight, we drove north to Eurardy, where the wildflowers were spectacular. The caretaker who showed us around is very keen and already well acquainted with the beautiful and sometimes rare flora on the property. She took us to see the early-flowering *Verticordia etheliana* subsp. *formosa* and the rare orchids that Julie was anxious to see. There is only one dryandra growing at Eurardy – *D. fraseri* var. *ashbyi* but it is a much taller plant with larger leaves than those at the type location, east of Geraldton, at the southern end of its range. I have shown these differences, in the drawings in *The Dryandras*. We have observed, previously, that it seems to grow larger as it goes north in its distribution.

On the way back to Popanyinning, we did a little detour to a road west of Mogumber, where the rare *D. fuscobracteata* occurs. Despite having the exact location from previous visits, I could not spot any plants from the car and it wasn't until I pulled into a farm entrance that I finally found just one plant. I hope that the reason that it is so hard to find is because of the shrubs that have grown up around it and not because there are only a few left. We were there at exactly the right time for the flowers.

South of Gillingarra is a site that I have visited frequently over many years where the declared rare plant *D. serratuloides* subsp. *serratuloides* grows. Each year there are fewer plants, due mainly to clearing along the railway line, despite the presence of 'rare flora' markers. Recently, I visited another spot, two km further south where there was another population of good, healthy plants along with other lovely things like *Isopogon dubius*. We stopped there, only to discover that the whole area from the railway line to the highway, has been cleared. This is just one more example of our disappearing flora. Sometimes these trips can be very disheartening when each one reveals more wanton destruction. I believe this case has been reported to the

authorities but I doubt if anyone will be held to account. I hope that the next time I visit, there will be plants re-sprouting or coming up from seed - and not just weeds.

On our last day, heading back to Denmark, we stopped at one of Julie's favourite orchid spot, south of Williams, where I found a population of yellow-flowering *Hakea trifurcata*. (It is usually white). Paul Kennedy, leader of the Hakea Study Group was very interested in this discovery.

We have had good rains, this year and the dryandras in my garden are doing well, except for *D. bipinnatifida* subsp. *bipinnatifida*. This is the one that I lifted from my Attadale garden. It spent a year in a large pot at the Banksia Farm while my house was being built, before I planted it here, in the gravelly soil, in which it thrived. It flowered very well after the first year when it produced just one flower head. I painted it and drew it for the newsletter cover and painted it. The painting is one reproduced in *Brush with Gondwana*. Last year it made lots of new leaf growth and no flowers and this year it produced six buds, earlier than usual. They were about half open when the plant started to die. So, unfortunately, it looks as though I've lost it. Seeds of it that I sowed this year have failed to germinate.

D. pseudoplumosa is flowering prolifically as I write, as is *D. lepidorhiza*, which died back quite a bit but has recovered. I've found that it's a good idea to remove the dead leaves, on these prostrate plants, with a sharp tug. New leaves will sprout from the underground stems, in their place. This also applies to banksias such as *B. petiolaris*.

D. viscida flowered spectacularly (see cover). Each of about a dozen flower heads was surrounded by what looked like another lot of flower buds but turned out to be new leaf growth. It hadn't occurred to me before but this character would put *D. viscida* in the 'mound' group.

Margaret Pieroni 1/12/2011

A Dryandra in Queensland

We were recently in Queensland and took the opportunity to visit Myall Park Botanic Garden, the former home and property of Dave and

Dorothy Gordon, near the small town of Glenmorgan, some 400 km west of Brisbane. Now while the Gordons may not be household names, one of their plants certainly is, *Grevillea* “Robyn Gordon”. This is widely grown throughout Australia and overseas and has the distinction of being the first Australian plant cultivar registered with the Australian Cultivar Registration Authority in 1968, just five years after it appeared in the Gordon’s garden in 1963. Dave Gordon is usually described as a grazier and wheat grower but from 1941, he and his wife Dorothy collected and grew plants from all over Australia and Dave built up a huge herbarium of over 7000 botanical specimens, largely of *Eucalyptus* and *Acacia*, but with many others as well. Dorothy was also a talented artist and painted many of these plants. They are on display in the gallery attached to the Information Centre. Dave specialised in plants from the arid, semi-arid and dry subtropical regions. Today his property still operates as a working farm but some 132 hectares of natural bushland have been set aside “to conserve and display species from arid, semi-arid and dry tropical regions, with an emphasis on rare, threatened and vulnerable species”. The gardens are managed by a Board of Honorary Directors and visitors are welcome, with various levels of accommodation being available on the property. For more information, see their website

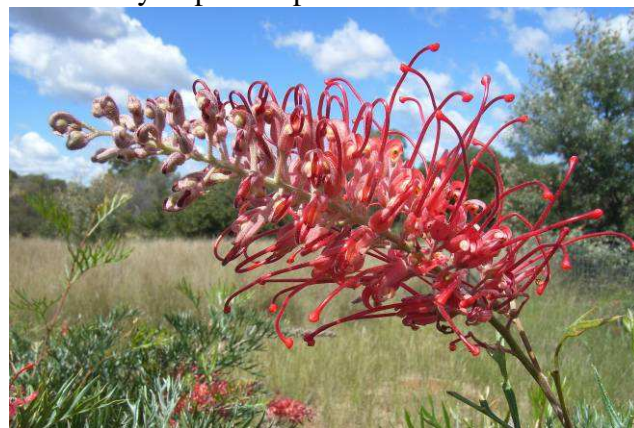
www.myallparkbotanicgarden.org.au

We did all the walks through the sprawling gardens, some suffering from many years of drought and low maintenance, and when speaking with the caretaker, I mentioned that I was interested in dryandras. “We have at least one”, she told us and showed us on the map how to get there. And yes it was, *D. arborea*, a



***D. arborea* in flower at Myall Park in April, Tony Cavanagh**

healthy large shrub in flower in April (although I understand that this species can flower at any time following suitable rain). Given the dryness of the area and their very hot summers, *D. arborea* was probably the best choice and my picture below shows it was happy and flowering well. And while we were there, we photographed the **original** “Robyn Gordon” plant, now nearly 50 years old and still flowering, such a historically important plant.



***Grevillea* “Robyn Gordon”, flowering spike on original plant, Liz Cavanagh**

Tony Cavanagh

Dryandras and the weather

I guess that I always seem to be talking about the weather but its vagaries have dominated our garden for perhaps the last 16 years. After some 10 years of drought, the last two years have brought above average rainfall, no flooding or anything disastrous but nearly 300 mm more than the 410 mm of our low year 2008. What has happened to our dryandras over this period?



***D. formosa* in flower in cultivation in Ocean Grove, December, Tony Cavanagh**

My main comment is that it was much easier to establish our plants in the “good” years of

consistent rainfall (not only dryandras) as compared with today and some of my earliest plantings of more than 20 years are still with us, most notably *D. longifolia*, *D. cirsioides*, *D. foliosissima*, *D. nivea*, *D. cuneata*, *D. nervosa*, *D. sessilis*, *D. brownii* and a couple of tiny plants of one of the *D. lindleyana* group. Others which have been relatively long-lived include *D. formosa*, *D. nobilis*, *D. praemorsa*, *D. lepidhoriza*, *D. fraseri*, *D. baxteri*, *D. quercifolia*, *D. mucronulata* hybrid?, *D. lindleyana* forms. Most of this latter group have lived between 10 and 15 years and have received little attention after the first couple of years. They have withstood dry and occasional heatwaves and I put this down to their establishing a good root system in the years of regular rain, which tides them over in the low rainfall years.

Contrast this with now. Over the last few years, I have tried some other species and forms, such as the dwarf form of *D. baxteri* which Kevin Collins discovered, the small sprawling form of *D. cuneata* from the south coast, *D. nivea* sub. *uliginosa*, *D. catoglypta*, *D. ionthocarpa*, *D. ideogenes*, *D. shanklandiorum*, *D. drummondii* sub. *hiemalis*. There would be more but in the last two growing seasons, I have been unable to germinate a single *Dryandra* species. All of these have grown slowly to very slowly, the first four are okay and healthy although I lost one of my two prostrate *cuneata*. The other four, after two or three years, are less than 15-20 cm high, many of their leaves are dead or dying and they are simply not thriving. Yet I have grown *D. shanklandiorum* in the past to flowering and have several other *D. drummondii* which are long-lived and have flowered.

My speculation is that the drought years have contributed to a breakdown in perhaps the soil structure and/or its ability to hold water (the soil appears to be water-repellent). The beds dry out much more readily and it is becoming impossible to continue to try to keep water up to these struggling plants. There are healthy (unwatered) old plants in the same beds which are coping, it's just the young ones that don't grow. I just may need to add a lot of organic material to the soil along with "wettasoil" type products, and devise a better method of watering, perhaps large wells which are filled regularly (and then hope that we don't have flooding rains that drown the plants!).

On a brighter note, the rainfall pattern for 2011 has meant a lot of both early and late flowering, and spectacular flowering of some species. Our spring garden was great from August and lasted into December. In fact the picture of *D. formosa* above was taken in late December, the latest I have ever seen. The most notable flowering event was not of dryandras but of red flowering gums (*Corymbia ficifolia*). There are many hundreds on the Bellarine Peninsula and I think that every single one flowered, from white through pinks, oranges and every shade of red, a truly magnificent display. Let's see what 2012 brings.

Tony Cavanagh
Ocean Grove

Honeyeaters and Dryandras

I have extracted the following information from *Western Wildlife*, vol. 15, no. 4, sent to me by Margaret. It is an excellent article on honeyeater habits by Prof. Harry Recher. He refers to the Dryandra Forest where "*dryandra* nectar is the principal source of energy for honeyeaters in winter".

Honeyeaters can meet their energy needs from either nectar or lerps and other carbohydrates. Those who are nectar dependent generally have long and decurved bills to probe deep into flowers. Body size also often determines where a bird can feed. "(At Dryandra), large red and Western wattlebirds favour the large inflorescences of *D. nobilis* which are borne on sturdy branches. New Holland and Tawny crowned honeyeaters also feed on *D. nobilis* nectar, but can also take nectar from the much smaller inflorescences and less sturdy branches of *D. sessilis* and *D. armata*, neither of which are much used by wattlebirds.

Wattlebirds aggressively exclude the smaller honeyeaters from *D. nobilis* inflorescences, providing a good reason for the smaller birds to frequent *D. sessilis* when nectar from both is available. There is a "pecking order" among honeyeaters, with the largest species excluding the smaller one. ---New Holland honeyeaters do the same, only deferring to the larger wattlebirds."

