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D. mucronulata subsp. *retrorsa*, Trevelen

Margaret Pieroni

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Hello and welcome to our first Newsletter for 2015

Well, I've survived so far with the MAC and am learning a few of its tricks and am now able to change between columns and no columns in the laying out so that I can incorporate pictures right across the page. Anyway, I hope that you find the material and photos interesting but I always welcome contributions on any aspect of Dryandras.

We are all aware of the proposal to transfer *Dryandra* into *Banksia*. I am very pleased that Alex George's paper which argues against the transfer, has recently been published. At Margaret's request, I have obtained permission from the publishers to reproduce the article and this will be provided to all members, either as a PDF document sent electronically with the Newsletter or in paper as part of our "Occasional Publications" series. Please take the time to read it although, because of the highly technical nature of much of the so-called "new taxonomy", it is sometimes heavy going. I believe that Alex makes a good case for reconsideration of the proposal and I suspect that several others, most notably the proposed wholesale transfer of several genera to *Melaleuca*, could also bear thorough scrutiny.

Margaret reports on the seemingly rapidly disappearing *D. mucronulata* var. *retrorsa*. Like the blue Corrigin form of *D. conferta*, this also has no "endangered species" protection and appears to be on the way to extinction. A friend of mine was growing it here in Ocean Grove but we were not able to propagate it and the plant eventually died. Then she takes us on several trips through the south west to numerous *Dryandra* locations (and some *Hakea* and *Grevillea* localities) and it is frightening how many of these have become degraded, especially from road-widening operations. Margaret travelled on several trips with Keith Alcock and they were puzzled about the variability of *D. platycarpa* in the field, the seeming intergrading of this species and *D. conferta* and the variability of leaves and seed capsules of the latter, all food for thought and much more investigation. Thanks to Lyn Alcock for more reports on her field trips accompanied by lovely photographs; for an orchid hunter, she does pretty well with Dryandras. Thanks also to Liesbeth Uitjewaal for keeping us up to date on the tremendous number of Dryandras she has raised from seed and flowered in her glasshouses in the Netherlands. Those funny furry things on her *D. speciosa* v. *macrocarpa* were indeed flower heads.

Margaret would like to have a Get-Together in WA, tentatively on the dates 19th to 21st October, 2015. This will be based on the Eneabba-Badgingarra area and accommodation will be organized. Open to all members so if you are likely to be in WA in October, you may like to include these days in your itinerary and if so, could you please contact Margaret, earlier rather than later, so that accommodation can be arranged.

Margaret has also been extremely busy updating the *Dryandra Study Group Newsletter Index*, the 2nd edition of which was prepared by David Randall in 1994 (*Occasional Publication No. 2*). Now that she has it electronically, she is prepared to update it yearly. Thanks Margaret for a tremendous piece of work. We are still working out how might be the best way to distribute it – possibly as an email attachment. Any suggestions? Another long-term project is preparing a master list of *Dryandra* localities in the wild. This is very time consuming so the finished document is still some time off.
 Happy *Dryandra* growing, Tony (run out of space, again).

More on *D. mucronulata* subsp. *retrorsa*

Last year, in Newsletter no.65, I reported the disappointing news that this beautiful taxon no longer, officially, exists because of the intermediate forms that occur across the range of *D.*

mucronulata; the large flowering forms being at the western end. It was considered that there are, “no consistent differences between the two subspecies . Therefore subsp. *retrorsa* is reduced to synonymy under *Banksia mucronulata*.” This means that ssp. *retrorsa*, which differs in other ways, as well, from subsp. *mucronulata*; previously gazetted as DRF and ranked as critically endangered, is no longer protected – and it gets worse.

In late July this year, Kevin Collins and I revisited Trevelen, north of Cranbrook, where we had been shown a population of large shrubs in November 1999 when it was not flowering. On the way, we had a look at the location of my 1995 discovery on Albany Highway, west of Cranbrook. At the time, I recorded about 20 plants but now there are fewer than 10 and the area is degraded. This time, John Sprigg took us to what we later realised was a different part of his 300 acre bush reserve. The previous plants had been growing on a gravelly hilltop and this was an open Wandoo area with other dryandras such as *D. brownii* and *D. sessilis*. The latter was flowering well with bright yellow flowers that I mistook for *D. cuneata* from a distance.

To our dismay, there were only three or four plants of *D. mucronulata* subsp. *retrorsa* still living,

several dead plants and no seedlings to be found. The plants had not flowered well and there were few seeds available. The flower heads were similar in size to the Cranbrook ones but smaller than our original, cultivated ones. None of them had the pretty pink on the inside of the bracts but were all golden yellow. This feature is more obvious because they spread out owing to the larger number of flowers, adding to the beauty of subsp. *retrorsa*. It appears that the form that my friends at Mandurah, south of Perth and I, in my Attadale garden, in Perth, once had growing, no longer exists.

It would be wonderful if it is still somewhere, perhaps on one of the private properties where collections were made subsequent to my earlier collections. I will be following it up.

I counted the flowers, as best I could, from the photos. They are:

1. From my garden: 140-150
2. From Trevelen: 100-120
3. From Cheyne Beach, (subsp. *mucronulata*): 80-100

(See pictures below in this order).

Just north of Mount Barker, Kevin took me to see the *D. preissii* plants growing at the edge of natural forest and cleared, grazed land. The plants; some more than a metre wide were in bud. We did not find time later in the year to look for the flowers as Kevin was busy with visitors to the Banksia Farm and I was away on a few more trips.

Margaret Pieroni 3/12/14



Alex George's paper, *The case against the transfer of Dryandra to Banksia (Proteaceae)*

Alex's paper with the above title was recently published in the American journal, *Annals of the Missouri Botanical Garden*, **100** (1-2), 2014, pp. 32-49. At Margaret's suggestion, I contacted the publishers to ask for permission to reprint it for Study Group members and this permission was readily granted. Those of you who receive the newsletter by mail will have a paper copy included with the Newsletter (which accounts in part for the slight lateness of the Newsletter) and email recipients will have two attachments. I did think originally of preparing a summary of the contents but as it is 19 pages long and much of the material is quite technical, I abandoned the idea and will just give the main points from Alex's Abstract:

(The transfer) "has been accepted by some and rejected by others. It is one of many examples of a debate that pits genetic analysis against centuries of field and herbarium studies, and cladists against classical taxonomists. I argue that: (1) there are sound morphological characteristics distinguishing *Dryandra* from *Banksia* and they should be maintained as genera; (2) paraphyly should be accepted in biological classification; (3) scientifically, and for a morphologically complex genus of 137 specific and infraspecific taxa, the use of 11 taxa for the molecular analysis of *Dryandra* was insufficient; (4) some morphological data, mapped into the cladogram a posteriori, were incorrect; (5) molecular cladistics approaches should complement rather than override pre-existing and extensive classifications based on phenotypic traits; (6) the acceptance of the transfer for the Australian Plant Census was premature according to guidelines published by Australian herbaria".

Speaking personally, I am delighted that this paper has been published and I would hope that some of the proponents of the "new taxonomy" and of the transfer are prepared to try to refute the above arguments. Even though I am not a botanist or a biologist, I have always puzzled over why genetic analysis and the cladistics approach seems to be regarded by so many modern workers as the "only" true way (Alex's point 5 above). And I can't see how sinking the 137 well defined taxa in *Dryandra* into a **single series** (emphasis mine) within *Banksia*, often with inappropriate names and with

almost no study of the characteristics of these taxa, helps anyone's understanding of the many differences between the various taxa of *Dryandra* as we currently know it. If these techniques could be used usefully to help separate/differentiate between, say, various sub species, that would be something but it is my understanding that they are not capable of such fine distinctions.

Again, speaking personally, I think that it is very disappointing that this paper could not be published in an Australian journal such as *Australian Systematic Botany*. It mostly concerns two iconic Australian genera and if it is good enough to be published in the prestigious *Annals of the Missouri Botanical Garden*, then it should have been good enough to be accepted here. Perhaps someone can enlighten me.

Tony Cavanagh
February 2015

More Delightful Trips

In September, I joined the 'Hakea Crawl' with Hakea Study Group leader, Paul Kennedy, from Victoria and a number of Western Australian enthusiasts. I drove up to Katanning to Bev Lockley's place, about 20 km east of the town and with her husband, Ron and sister Margo, we joined the rest of the group, north of Perth, in their vehicles the next day, Saturday 20th. It was not long before we realised that plants were flowering about a month earlier than usual and we were seeing flowering plants that we didn't expect to see and we had missed the earlier - flowering ones.

I suggested a lunch stop at Wannamal, at a picnic area which was an old school site. There is an outlier of *Hakea myrtooides*, there and lots more very good plants in the Proteaceae family. *Isopogon divergens* was particularly striking, though almost finished. Nearby, is *D. hewardiana*. From Moora, we took North West Rd. and called in at the gravel pit that I call "Hakea Heaven". The timing was perfect for the wonderful array of different colours in *H. auriculata* and the group was suitably impressed. Among the dryandras there, *D. shuttleworthiana* stands out. It can usually be found with late flowers – but not this year.

It poured with rain most of the next day when we went Mount Lesueur. We stopped at a great spot for all sorts of flowers, on a hilltop north of the turn in

to Mount Lesueur. I had been wondering what the dryandra was that I saw from the car and when we stopped I realised it was *D. sessilis* var. *cygnorum* with brighter yellow flowers than usual. We waited at the car park at mount Lesueur for a break in the rain that didn't come and then continued on eastwards on Tootbardi Rd and then north on Garibaldi Willis Rd.

On the top of a hill about half-way to Tathra National Park is the type location of *D. nobilis* subsp. *fragrans*. By far, the largest population of this lovely plant is on the Williams' property, Hi-Vallee, to the south, but there were quite a few plants here when Alex George collected it in 1986. I could not see any, at least from the road, where they used to be. There might have been some further into the woodland but it was too wet to investigate and we were keen to get back to our base at Western Flora Caravan Park, north of Eneabba. *D. stricta* is still there but there are fewer on the western side of the road where a gravel pit has been opened since I was there, three years ago.

Most of the group had to return to Perth but some of us, including Paul, stayed an extra night and on the Monday we went to the Reed's property south of Arrino and Cathy took us back to her wonderful 'sand patch', where we had collected flowers for the Three Springs Wildflower Show in September, 2012. (See newsletter no.64). I had more time to look for the dryandras there, on this visit. They had all long since finished flowering, except for *D. tortifolia*, but its flowers were almost done. I found *D. lindleyana* subsp. *media*, again but came to the conclusion that what I thought last time might have been *D. cypholoba*, was probably *D. lindleyana* subsp. *media* which was about to die and its leaves were beginning to curl so that they looked more like the "humped" shape of *D. cypholoba*, rather than flat. Since this location appears to be an outlier of *D. platycarpa*, and other plants that occur further south, I thought it might also have *D. cypholoba*. I collected a leaf of *D. platycarpa* as it might be the northernmost population; (see below).

On the way back to Katanning, the following day, Bev and I called in to see the "mystery" plant that Lyn Alcock had found at Thompsons Reserve, west of Wagin. From the photos she sent earlier, I thought that the leaves looked like those of *D. arctotidis* except that they are flat – not strongly angled from the midrib. She sent some photos of

the flowers, later but they were finished before we arrived. The area is interesting – one of those flat open areas in Wandoo woodland where small plants and ephemerals grow. Its one of Lyn's Orchid haunts. I'm pretty sure the dryandras are *D. lindleyana* subsp. *lindleyana* var. *lindleyana*. The flowers are at ground level and the leaves have a 'ferny' look with much narrower triangular lobes than usual. (See drawing).



D. lindleyana Thompson Res.

Before coming back to Denmark, the next day, Bev took me to see a couple of plants of *D. tenuifolia*

var. *reptans*, quite close to her home. She had sent me a photo of a flowering specimen she had collected, earlier in the year and I noticed that the piece had entire leaves. I was interested to find out if all the leaves were like this. We discovered that about half of them do have just a few lobes at the end of the leaf so it is typical var. *reptans*. The bracts are brown and not rust-coloured like the ones at Gnowangerup. This population extends the known range of this plant quite a way north, at least as far as I am aware.

Following our discovery of the decline of *D. conferta*, 'Corrigin Blue', earlier this year, Keith Alcock and I are keen to find out more about the various forms of *D. conferta*. Before Alex George began the revision of *Dryandra*, he had several collections of *D. conferta* to which he assigned different numbers. One became *D. platycarpa*, another *D. conferta* var. *parva*. The shape of the seed capsules is an identifying feature. Of the remaining "common" forms there are rather smaller differences and, as Keith wrote in his article in the last newsletter, then there's 'Corrigin Blue' which is the type specimen of *D. conferta*.

Keith also wanted to look at some of the populations of *D. platycarpa*, which he thought were variable. There seem to be northern and southern forms separated by about 60 km, according to the locations that I have. We wanted to see whether the southern ones have bigger leaves like one I had collected on Fynes Rd. west of Mogumber, years ago. I identified it as *D. platycarpa* by the shape and size of the seed capsule, at the time.

Also on the "wish list" was to see the *D. kippistiana* var. *paenepeccata* that Fred Hort had found at his "Patch". I have visited the location almost every year since Fred showed it to me in 2001, not far from where he discovered *D. prionotes* but I'd never seen it in flower. The only remaining plant that I could find, in recent years was very badly affected by sooty mould and getting worse, each year.

Most importantly, I wanted to find the plants that, for years I have thought were *D. kippistiana* var. *paenepeccata* at Don and Joy Williams' wonderful property, Hi-Vallee, north-east of Badgingarra. In two places, I had marked a few plants that appear to be half-way between *D. kippistiana* var. *kippistiana* and *D. sclerophylla* in leaf and seed capsule form.

Again, I hadn't seen these in flower even when the supposed parents were flowering – the first in August – September, the second in September – October. I should have checked the flowering times because, for var. *paenepeccata* it is October – November.

In October, Neil and Wendy Marriott, (Grevillea Study Group), came over to WA from Victoria with only two days to visit as many wildflower locations as possible before embarking on a Wildflower Tour, as guides. Keith, the Marriotts and I had been corresponding for months about arrangements to do two day trips from Keith's place at Kalamunda, an eastern suburb of Perth in the Darling Range, (The Hills). I worked out an itinerary to look at some special dryandras and grevilleas, north of Perth for the first day and we decided on another for the second one after we got together at Keith's place.

We stopped at the Wannamal picnic spot for morning tea and then took Wannamal Rd. to Brand Hwy, marvelling at the masses of *Verticordia nitens* along the way. It was in bud and looked as though it was just about to flower. It must have been a glorious sight with its shiny, golden flowers, in November rather than at Christmas time, this year. Our first objective was to find *D. platycarpa* on Fynes Road. I had two locations near the junction with Marri Heights Rd. We could not find any plants there, although we did stop to photograph some very good plants of *D. echinata*. On Marri Heights Road, we found *D. kippistiana* var. *kippistiana* on one side of the road, with *D. sclerophylla* opposite, on the other side. Both were in flower although the *D. kippistiana* plants seen elsewhere had long finished.

We arrived at The Patch, about 6 km south of Cataby, (50 to Badgingarra) and I headed straight for the *D. kippistiana* var. *paenepeccata* plant. It was not hard to find because it was still as black as ever, but...it was flowering. I took some photos of the flowers among some not-quite -so-black foliage. They were well out with no flower heads with buds. I shouted out to the others who were out of sight over the hill but in the end I had to go back to where they were, only to find that they had found some, smaller but better plants. Later, when we went to where the *D. prionotes* occurs further north, in the same area, we found another one.



***D. kippistiana* v. *paenepeccata* Hi-Vallee MP**

We all agreed that *D. prionotes* seems to be clonal which doesn't look good for its survival. Seed appears to set very rarely. Only the one plant of *D. kippistiana* var. *paenepeccata* was flowering. Around it were: *D. bipinnatifida* subsp. *multifida*, *D. lindleyana* subsp. *pollostata*, *D. shuttleworthiana* and the aforementioned *D. prionotes*.

We went along the road to Yandin Hill where I hoped to find a form of *Grevillea synaphea* which I have seen on the road verge. I have wanted to show it to Neil for quite some time, in case it was the same as the one from Misery Hill which is not far to the east, but seemingly inaccessible. The verge has become very degraded and weed-ridden and, even though I walked along the section of road where I'd seen it before, there was no sign of the plant. Worse was to come. Yandin Hill is a very good location for a variety of wonderful plants and stunning views to the coast. I had photographed *Grevillea drummondii* there, years ago for Neil and Peter Olde. Unfortunately, due to the abnormally early flowering season, there were few flowers of any sort flowering there.

On Minyulo Road, the home of some rare grevilleas we were in for a shock. The roadsides were so degraded that we found it difficult to locate the spots where the grevilleas grow. We did eventually find the place after driving slowly and walking a stretch of the road. *Grevillea calliantha* should have been prominent but there was no sign of it. We found a few plants of *G. saccata* among the weeds but couldn't spot the Minyulo form of *G. synaphea* var. *pachyphylla* or the beautiful form of *D. fraseri* var. *crebra* that used to be there. It was a sad end to an otherwise very enjoyable day.

I have been told since then that there is a recovery plan in place for *G. calliantha* but I don't know more than that.

On the second day with Neil and Wendy, we went to Calingiri via New Norcia. At the junction of Great Northern Hwy and Hay Flat Rd. we stopped to look at the population of *D. polycephala* where it grows in profusion with *D. squarrosa*. The latter had finished flowering and there were only a few flowers left on some of the *D. polycephala* plants.



***D. polycephala* Hay Flat Rd. Margaret Pieroni**

Twelve km south of New Norcia, on a gravelly hill top, there is a spot that was famous for its dryandras. It was one known to dryandra lovers like Neil and Keith for years before I went there. During road widening several years ago, it was destroyed. There are a few plants of *D. fraseri* var. *fraseri* left but there used to be massed plants of *D. nobilis* subsp. *nobilis*, *D. nivea* var. *nivea*, *D. bipinnatifida* subsp. *multifida*, *D. echinata* and *D. polycephala* as well, there.

On the New Norcia to Calingiri road we found *D. hewardiana* where I had marked it on the map. Some plants of *Grevillea eriostachya* stopped us in our tracks. They had gorgeous spikes of many flowers. To me, the colour was a more golden yellow than usual and I recalled the *D. sessilis* vars that I've seen, this season which, I'm pretty certain,

are also a more intense shade of yellow.



***D. purdieana*, west of Calingiri Margaret**

About 5 km before Calingiri, we found *D. purdieana* on the roadside. Some of them were in flower and showed the typical shape of the flower heads with the bracts constricted at the top, forming a real 'thistle' profile. Keith found a nest with eggs inside one of the shrubs and Neil observed the bird flying to it, later - a White Fronted Chat.

We drove into a reserve that Neil knew of, south east of Calingiri, where we found a wealth of flowering plants, especially verticordias and stylidiiums. In one spot the yellow Boomerang Trigger Plants *Stylidium breviscapum* carpeted the ground. Keith decided to drive through the reserve but regretted it later when we came to a section of track almost overgrown with dense bushes and with termite mounds in it, not all of which he was able to dodge or straddle. Some of them had to be cut down with a spade. Nonetheless it proved to be a very interesting place, though not necessarily for dryandras or grevilleas.

That night Keith and I enjoyed dinner with Neil and Wendy at the hotel in Perth where the tour group were staying and met the rest of the group. We were able to give them an idea of what they would see around Badgingarra and Eneabba; plants that would not normally be in flower yet, such as the verticordias and grevilleas like *G.polybotrya* at Eneabba.

Neil had told us about John Cullen's marvellous garden at Jurien, which he is yet to visit so Keith and I spent the next two days going north again to visit John and his wife, Chris, spending the night at Western Flora. John was a member of the Dryandra Study Group when he lived in Victoria and he, Keith and Neil have known each other for a long time. John moved to WA several years ago but not before he had travelled widely in this state and discovered *D. idiogenes*. About three years ago, he and Chris built a lovely home on a large property of Banksia Woodland on old sand dune country, just inland from the coastal town of Jurien. John is growing an amazing collection of plants; many of them are rare and/or hard to grow and the garden is a delight. He has a wonderful collection of verticordias, most of which were flowering.

On Jurien Road we marvelled at the large, floriferous *Verticordia grandis* plants and, nearer the coast the large, bushy, bright yellow -flowered *D. sessilis* var. *cygnorum*, once again. On the way back to Kalamunda we found *Banksia elegans* in flower and more verticordias. We looked for *D. nana* on Tootbardi Rd. but only found one flower head that was too difficult to photograph. I was hoping to find it at Hi-Vallee when we went back in two days time.

The next day, Keith and I set out for Cadoux to look at one of the *D. conferta* forms, there. We stopped at the Morangup Reserve on the way to Toodyay to look at the results of the fire of a couple of years ago. The *D. nivea* form that I call sp. Morangup had been in serious decline but now there are masses of small plants, a few of which had flowered for the first time.



The lovely *D. aff. nivea* Morangup Margaret

When we got to Cadoux, we drove about 4km east to the corner of Johnson Rd. This was our frequently visited spot, in the past, for *D. shanklandiorum*, *D. purdieana* and the *D. conferta* we hoped to find. Arriving at the site, which had been disturbed – road works again, all we found at first were some dead or dying plants of *D. shanklandiorum*. Further searching revealed some healthier plants of *D. shanklandiorum* and Keith found a poor specimen of *D. conferta* but no *D. purdieana*.

Keith then went across the main road into a fenced property where he found all three dryandras. I began to examine the seed capsules on various *D. conferta* plants. On some, I found they were the typical 'kidney bean' shape of *D. conferta*. Then I found some consistent with the shape and size of those of *D. platycarpa*. Then I found both on the same branch of another plant and then, the two different ones in the same seed head. (see diagram P. 11)). What is going on here? The plants had leaves of varying lengths, some had the longest ones at the top of the plant and much shorter ones lower down. Perhaps this was a response to the rainfall at different stages of the plant's growth, but it did strike me as unusual. We wondered whether these plants could be intermediate between *D. conferta* and *D. platycarpa*. Further south, at another of our sites on McKay Rd. we found all three dryandras looking fine. Some of the *D. conferta* plants were quite tall, as we'd remembered them from the Johnson Road corner.



Another beauty, *D. pulchella*, Mt. O'Brien, MP

We cut across to the Northam – Pithara Rd, north of Wongan Hills. Because we had seen *Verticordia monadelph* flowering early, south of Eneabba, we decided to drive through Reynoldson's Reserve

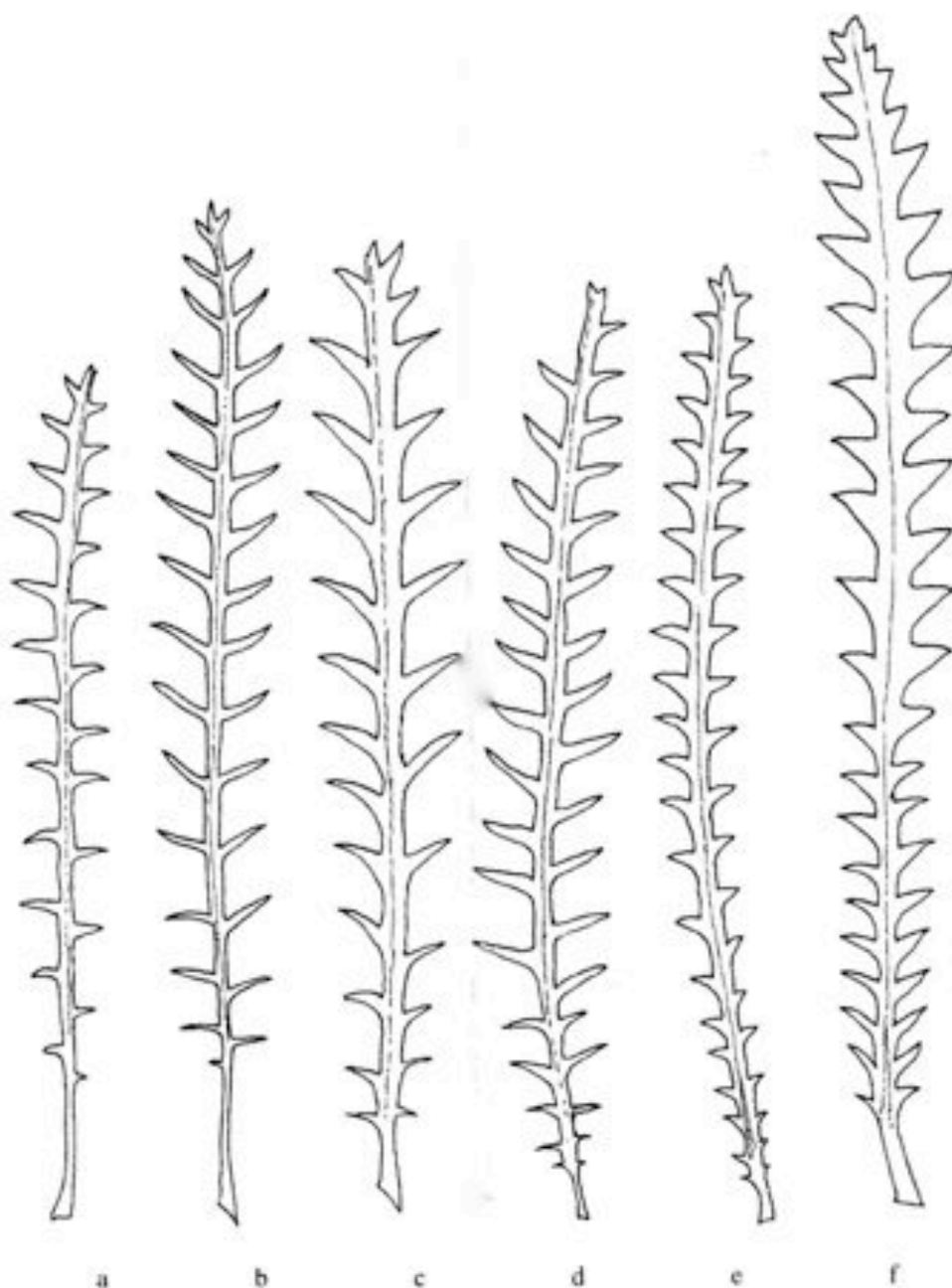
which is famous for the wonderful display of massed verticordias in late spring. We were not disappointed. Most of the various species were almost fully out and the effect is dazzling. We went to Mount O'Brien to see whether we could get better photos of *D. pulchella*. This time we found some bushes with a good display of flowers. The other dryandras there, *D. comosa*, *D. purdieana* and *D. wonganensis* had long finished flowering.

After spending the night at Wongan Hills, we started off early to get to Hi-Vallee by lunch time. On the way, I had a few *D. platycarpa* sites in mind, to look at. Between Piawaning and Waddington, we saw *D. purdieana* again but not in flower. On Watheroo Rd., we found *D. purdieana* and *D. platycarpa* from which I collected leaf samples. At the end of the road, near Brand Hwy, *D. stricta* was flowering beautifully. It has a long flowering time, in a good season, bearing its flowers at the ends of the upright branches, a few at a time.



D. stricta, Watheroo Rd. Margaret Pieroni

Arriving at Hi-Vallee, we were given the usual warm welcome from Don and Joy and lost no time getting out into their bushland to have our lunch and go to the spots where I had marked the plants that I thought were *D. kippistiana* var. *paenepeccata*. We were accompanied by one of the local DPaW staff for part of the afternoon, as arranged. We found a few plants at both sites that



D. platycarpa a) Reed's block b and c) Alex. Morrison NP. d) Big Soak Plain e) Watheroo Rd. f) Fynes Rd.

Variation in leaf length and shape of *D. platycarpa* specimens collected by Margaret and Keith

were flowering and collected specimens. We looked at another site for *D. tridentata* and *D. tortifolia* in the hope of getting some photographs but they had finished flowering. Normally, it would have been peak flowering time, for them. We also collected *D. sclerophylla* from the same sandy patch for comparison with the previous ones.

Then, on our way back to the house as we left the fenced area, we found more and more of the plants, flowering well and in very good condition. I'm in

no doubt they are *D. kippistiana* var. *paenepeccata* but Don will send the specimens to a botanist who has surveyed the property in the past and has a special interest in it – just to confirm the identification.

On our way back to Tootbardi Rd., the next morning, still on their property, we found more plants in a patch of remnant low-growing plants in laterite gravel and many plants of *D. nana*, some of which had flowered very well – about a month

in any of the southern locations we visited during the various trips.

Many thanks to all of you who provided the usual wonderful help and hospitality and great company.

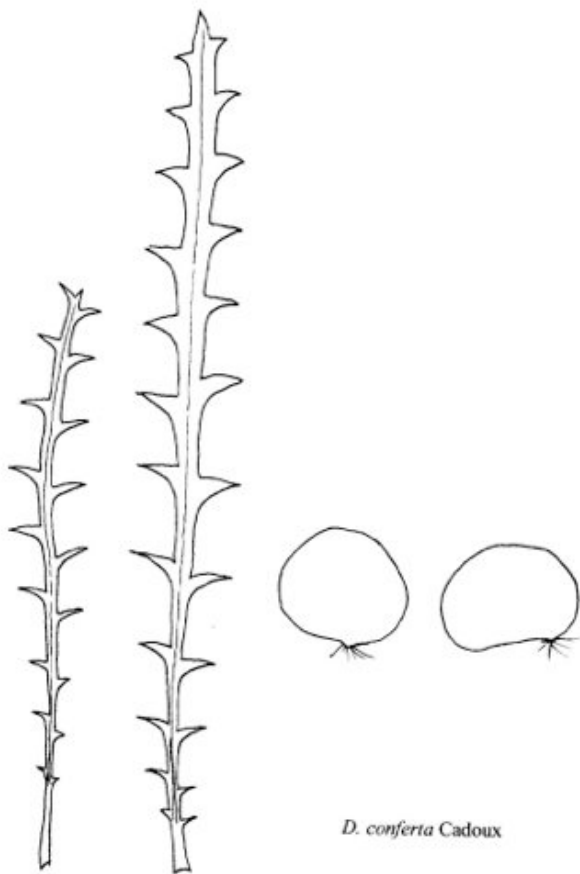
Stirling Ranges trip, October and life at Denmark

On 25th October, I joined a group of members of the Armadale Wildflower Society; among them, some friends from my early days in the society and members of the Albany branch for a morning at the Stirling Ranges.

We drove along Salt River Rd., the northern boundary of the National Park. There were not a lot of flowering plants to be seen – yes, you guessed, they'd flowered early. I suggested that we have our picnic lunch at our gravel pit 'Dryandra hotspot', instead of where the Albany people had proposed, a bit further along. None of the people were aware of this spot. It used to be a gravel pit and it had been closed and the short track into it blocked and overgrown, long since. There are two photos of this spot in *The Dryandras* in the section on soils and habitat. (There are also two of parts of Hi-Vallee). The plants that appeared after the pit was closed, thrived for a while but it has never returned to its natural state and the vegetation is sparse. It is not weed ridden, thankfully. I was able to show the group where I collected the type specimen of *D. pseudoplumosa* in 1986. A few plants in the old pit were beginning to flower but, on the never-disturbed edge, the much taller plants were already in flower. The plant of *D. drummondii* subsp. *drummondii* that we found with the most advanced flower buds had deep pink styles.

Here, in Denmark, we have had fairly good rain which seems to be tapering off, rather than stopping abruptly as in previous years. I've lost a couple of plants but I was pleased to discover the two flat *D. calophylla* plants flowering. The flower heads are rather hard to see, being the same colour as the ground, but they are not completely hidden by the new leaves growing above and over them.

Readers of my accounts of dryandra trips around the south west of this state over the years, will be well aware of the number of times that I have reported the disappearance of dryandras and their habitats, especially on roadsides since my first forays back in the eighties. My advice to anyone



D. conferta Cadoux

Variation in leaves and seed capsules, *D. conferta*

before. From Tootbardi Rd. we took the sandy track to Big Soak Plain, only to find that there had been a fire there recently. A few dryandras had escaped the flames. We found *D. platycarpa* and *D. cypholoba*. At the northern end of Tootbardi Rd., we drove east on Coorow – Green Head Rd., then south onto Marchagee Track and eastwards along the north boundary of Watheroo National Park. This has to be one of the top flora roads in WA. We made several stops to take photos. The pink-flowering form of *Grevillea polybotrya* was at its best and three verticordias that I haven't seen since I painted them back in the eighties: *V. muelleriana*, *V. laciniata*, both of which had been collected in November and *V. insignis* subsp. *compta*., *V. grandis*, which flowers year round, in cultivation at least, was absolutely stunning, wherever we saw it - just covered in (sometimes deep) scarlet flowers.

We drove west along Gillingara Rd., south of Moora, to look for (southern) *D. platycarpa* in two locations where I've seen it previously. We arrived at the first one and there were no plants there. We spent some time searching on foot and drove slowly east to the next location but there were no plants to be found there either. We didn't find a single plant

wishing to see the wonderful flora of WA would be to get here as fast as you can!

I'm always pleased to welcome visitors and share information on dryandra locations. I am currently compiling a list of dryandra locations but it will take some time to complete. Meanwhile, in the index to the newsletters, where the location is given, the dryandra name is underlined.

Margaret Pieroni 5/12/14

Mystery *Dryandra* in Thomson Reserve

Attached are 4 photos of the flowers at Thomson Reserve. As I said they are quite different so will be interested to hear what you have to say. I have been out so many times this year trying to catch as many of the beautiful orchids as possible - it is such a good year. I am coming down next week to be shown some of the huge burn on Blue Lake Rd. There is apparently lots to see there.

Oh yes, when I went with a friend to Nyabing to see orchids, I managed to call into those *D. ferruginea* on Wallacup Rd and they are certainly subsp *magna*....got a few photos but was rushed as my friend was not into Dryandras. But did manage to check the revolute margins of the leaves. They were all fully in flower and quite stunning, with the smell quite overwhelming and heaps of bees around and enjoying them.

Lyn Alcock Jan 2015

(Comments from Margaret;

I have just come back from a very successful Hakea trip to Badgingarra, Eneabba and Three Springs area. I stayed with Bev Lockley at Katanning and on the way back, called in to the Reserve where we found your dryandra. The flowers were finished but I don't think now that it is D. arctotidis but an unusual form of D. lindleyana. The leaf lobes are very different, not as triangular, almost obtuse and narrow. I was thinking that it is analogous to Corrigin Blue – unlike the other D. conferta forms because of the leaf lobes. See page 5 for leaf drawing).



Variations in colour of flowers Lyn Alcock

Good and Bad News from Members

From Lyn Alcock, who accompanied Keith and me on a trip to find summer-flowering dryandras, last year. Her account of the trip appeared in the last newsletter, no 67. She wrote on 10/1/15:

I went to Nyabing yesterday and out to Rabbit Proof Fence Rd to check out the *D. drummondii* subsp. *macrorufa*.



D. drummondii s. *macrorufa*, red form, Lyn

I timed my trip perfectly – they have done very well this year and look in superb condition and best of all, had heaps and heaps of flowers. I found flowers right through, from tight buds to fully open – most were fully open and some even finished. Almost every plant had flowers, from the smallest plants to the big, old plants. Some of the big plants had dozens of flowers. They are truly beautiful and I quite some time there, getting a nice lot of photos.

I also visited the *D. cynaroides* and the *D. stiposa* in the Dryandra Woodlands. The *D. cynaroides*

were also in magnificent condition, with many more flowers than the last couple of years and they were well in flower. The *D. stuposa* are just coming out in flower, but lots there, too.

I was looking back at my notes from our trip, last year and it brought back great memories.

I am wondering if I can get out to check out *D. erythrocephala* var. *inopinata* next week. From the book, they should still be in flower.

Lyn lives in Narrogin, not far from some locations for the latter that I haven't seen for some years. I have sent her a list of all the locations for her to check out if she can.

*From Val Crowley, who first showed me *D. subpinnatifida* var. *imberbis*, in 1995, in two locations west of Darkin, where she lives. The photo of it in 'The Dryandras' was taken at the Bowelling population. It was the only plant we could find that was not a hybrid with *D. squarrosa*:*

I was unable to re-locate *Dryandra subpinnatifida* var. *imberbis* at Bowelling. The bush had lots of timber over the tracks and had become very overgrown since 1994/95 when the specimens were collected there and at Boolading, so I was unable to drive there and it's too far to walk; while at Boolading, there is a tree plantation.

Note from Margaret re Get Together in the West

We are planning to have a get-together for members in WA, centred on the Dryandra - rich Eneabba – Badgingarra area.

Probable dates are 19th to 21st of October. We will arrange accommodation at Western Flora Caravan Park for two or three nights. Anyone touring in WA at the time might be able to fit that into their itinerary. Please let Margaret know if you are interested in coming and she will contact you with the information as it comes to hand. We will need to know well in advance for the booking of accommodation.

Thank you, all the best.

Finding *D. erythrocephala* v. *inopinata*

I went out to 101 Rd, Harrismith last Friday and found the elusive *inopinata*. As per your directions, Margaret, I first stopped at the 10km spot but did

not find it. However at the 18.5km mark they were in abundance. However the first number of plants



A very lovely plant

Lyn Alcock

only had finished flowers and I was about to despair, when I came across a plant with several flowers...after that they appeared all over the place. That really is an amazing spot. Then on to the 19.3 mark and once again could not find any. I did however find lots of other flowers of interest and will certainly be going back to that road in the future.

As it was getting very hot by then, I decided not to go out any further and again stopped at the 10km mark on the way back. A very thorough search revealed lots of *D. vestita* in flower, but did not even find one *inopinata* despite searching well in both directions. I even had a truckie stop to see if I was ok. I am sure he thought I was quite crazy being out in that heat looking for flowers!!

Back into Harrismith and *D. vestita* was well in flower there. And once again the area yielded a questionable plant, and in fact very close to that strange Hakea I found. This one was definitely a large *D. cynaroides* with just a couple of flowers left on it. And once again it was just the one plant. I was surprised I had not seen it before. So as with the Hakea I shall monitor it over the next years to see what else I can see there.

If there are any other Dryandras you want me to check out just let me know. As you will have seen, I am quite happy to travel quite some distance to see them. This year I want to get to see *D. erythrocephala* v. *erythrocephala* and *D. lepidorhiza* especially.

Lyn Alcock Jan 2015

Report from the Netherlands

With respect to the ever continuing story of my funny *D. speciosa* ssp. *macrocarpa*: I fiddled around somewhat with the largest of the funny structures yesterday and lo and behold.... definitely flower buds in my humble opinion after all! What do you think? I'm hoping they might fully open in due course. Since they're winter flowering this will be around Christmas I guess. There's around 25 of these 'buds' so it'll be quite interesting.



Looks like flowers to me Ed.

My *D. quercifolia*, from seed Margaret collected at Quaalup in Sep 2009, it germinated in November 2009 for me, is about to flower. The plant took quite some time and quite a bit of pruning to develop into a nice shape but I quite like it now. More so because it's doing so well! Unfortunately the flowers seem to be yellow, rather than the pink I'd expected. Margaret collected the seed from a pink flowering plant she said. Nonetheless, I'm



Very healthy plants of *D. quercifolia* Liesbeth

very pleased with it. At first I felt that the buds aborted since they turned grey and didn't develop any further. Instead, new growth with buds on top appeared from below the buds. I made sure to keep the plant well watered (I felt the first buds might have aborted because of a dry spell) but surprisingly after a while the 'old' buds started to swell after all and are they're about to flower. I'll send a pic in my next e-mail.

Dryandra conferta, germinated February 2012 so 2.5 y.o. now, is budding up heavily which was a great surprise. *D. pseudoplumosa* is producing flowers on and off, *D. nobilis* ssp. *fragrans* (germinated June 2011) is budding up so everything's well over here. Ah yes, *octotriginta* (germinated June 2011) is in flower as well. The plant is very attractive, the flower a little messy. It might do better with the future ones.

Liesbeth Uijtewaal

(Great effort, Liesbeth, keep it up. Ed.)

And please remember, our book *The Dryandras* is still available. It is out of print in the shops but I still have copies and it is also sold by APS Vic. Book sales. Special price to members is \$45.00 including postage.

