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DRYANDRA STUDY GROUP NEWSLETTER No. 64

AUSTRALIAN NATIVE PLANTS SOCIETY (AUSTRALIA)

***Dryandra platycarpa* S.W. of Arrino. See page 4. Margaret Pieroni**

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DRYANDRA STUDY GROUP

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Hello and welcome to our first newsletter for 2013.

Firstly, it is with great pleasure that I can inform Study Group members that late last year, Margaret was awarded Life Membership of the Wildflower Society of W.A., the citation reading 'in recognition of her long term contribution to the aims and work of the Wildflower Society through her art and love of *Dryandra*.' This is great news and I think long overdue, so congratulations Margaret from us all. I believe that there will be an article in the next issue of their Newsletter which I hope to reproduce in July. On a sadder note, Elizabeth George died last November from cancer. Best known for her work with *Verticordia*, Elizabeth was also an interested and active member of the Study Group and will be sadly missed.

I have been having mixed success with my Dryandras. Despite an abnormally dry late spring/summer, all my plants in the garden are surviving and as you will see from my article on *D. ferruginea* subsp. *chelomacarpa*, some are doing very well. Young plants in pots and recently planted in the garden are a different story. I lost all three seedlings of *D. arctotidis* in pots (a couple of hot days finished them) and I still cannot establish young plants in old garden beds. I guess that I was lucky that I was reasonably successful in the early days and most of these plants are still with us. I wonder if I am the only one who has the problem of establishing new plants.

Thanks to Margaret for her articles on Cheyne beach and her trip to that wonderland of native plants, the Three Springs – Eneabba area. The wildflower display at Three Springs must have been spectacular. She also reports on the solving of a long-term mystery, was Lucky Bay the location for Robert Brown's collection of the type specimen of *D. plumosa*. Recent discoveries show that it was. Her article on "Hybridization in Nature" touches on a subject dear to Margaret's heart, does hybridization pose a problem to the continued existence of rare plants. Because of the readiness with which *D. subpinnatifida* var. *imberbis* hybridises with *D. squarrosa,* it is quite possible that the former will cease to exist as a discrete species, a worrying prospect. Margaret also finished her series on looking back, now a valuable source for *Dryandra* locations in the wild. I report on dryandras seen on Kangaroo Island in New Zealand, interesting to see them so far from home, while Hartley Tobin and Phil Trickett let us know of happenings in their part of the world.

The last section of the Newsletter deals with Study Group business, Margaret's annual report and a financial statement, and on the final page, a *Dryandra* Survey. I invite all members to complete this and return their completed forms to Margaret. Those who receive their newsletter by mail can simply remove the survey form, complete it and return to Margaret. For those who take the email version, I am sorry but my knowledge does not extend to providing the form as an electronic version to complete and return by email. You should be able to print it out, complete and return by post or perhaps make a digital copy and try to complete but it is a PDF document so you may not be able to do much with it in any case. The main thing is we value your feedback and hope that everyone will fill the survey in and return it to Margaret.

Happy *Dryandra* growing

Tony

Cheyne Beach and Beyond

By Margaret Pieroni, November, 2012

Last week, I returned to the Cheyne Beach sites that I wrote about in the last newsletter, no.63. This time, I was with a friend in a 4WD that doesn't have as much clearance as Kevin Collins vehicle and the track seems to have deteriorated even more, in parts. This made for a rather stressful drive for us both. Also, the sand was drier and it was necessary to let some air out of the tyres for the sandy tracks. For anyone visiting the area, in future, I would advise making enough time to walk the track or approach from the Caravan Park end (with air let out of the tyres, if needed) as far as the sand goes and walk the rest of the track over the rocky, clay and gravelly parts.

The 'flat' *Dryandra calophylla* plants are only a few metres from the headland at the eastern end of the beach. Unfortunately, they were still just in bud and there weren't many of them. I would think that they would do better in cultivation. Last autumn, I sowed 12 seeds and got 11 seedlings with leaves that are flat right from the outset.

We had enough time to re-visit the marvellous granite rocks again, by walking the last kilometer or so when the track became too rough. The views are magnificent and the various wildflowers growing among the rocks quite colourful and interesting. The rare *Banksia verticillata* seems to be thriving here and *D. formosa* also grows near the summit.

The following day, we returned to the vicinity and decided to explore a track further east, leading towards the coast from South Coast Highway. We came across some very good roadside bush which contained some intriguing plants. I assumed that some of them had once been planted there as they normally occur much further to the east, or in the case of the *Dryandra* we found there, further north, in the Stirling Ranges. I am almost certain that it is *D. hirsuta* because of the very long hairs on the petioles of the leaves surrounding the seed heads. The flowers had long finished.

Yesterday, as much by coincidence as detective work, I met the owner of the nearby property. He assured me that he hadn't done any roadside planting and that the *Dryandra* occurs on his property, as well. He told me that it has yellow flowers. *D. hirsuta,* in the Stirlings usually has flowers with a pink flush, (as does *D. armata* var. *ignicida,* the only other dryandra that I can think of, that it could possibly be). I will be following this up!

Eneabba – Three Springs Trip

By Margaret Pieroni, December 2012

As promised, Julie and I returned to Three Springs in early September, to help with the setting up of their Wildflower Show.

A stay at Dryandra had been arranged for the previous weekend with a local (Denmark- Walpole) environment group that we belong to. On our way, from Denmark, we called in at Strathmore Hill Reserve, south west of Woodanilling where there is a good population of *Dryandra proteoides.* It had finished flowering but there were a lot of *D. armata* var. *ignicida* in full flower, some with a lovely pink flush in the flowers.

At Dryandra, I took the group to my special dryandra spots. One, in particular is mentioned by Jim Barrow in his excellent article in the latest *Australian Plants* (vol. 26 no.212). Although we were too early for the flowering of *D. subpinnatifida* var. *subpinnatifida,* I took some photos of the leaves of various shrubs, most of which indicated hybridization with *D. squarrosa.* There were some flowers on the magnificent *D. stuposa* and some *D. nobilis* subsp. *nobilis* plants were flowering extremely well. Most of the other dryandras there, flower at other times of the year, for instance, *D. cynaroides,* in summer.

We went on from Dryandra to Eneabba, calling in to see the *D. praemorsa* var. *splendens* type location, west of Wandering. The plants in this small population have flowers ranging from all yellow to deep pink. In the case of this taxon, it is the styles that are pink and not the perianth, as with other dryandras that are sometimes pink like the aforementioned *D. armata* var. *ignicida, D. hirsuta* and *D. quercifolia.*

After spending the night at Eneabba, we drove the relatively short distance to Three Springs, stopping to look at some of the floriferous heathland (Kwongan) on the way.

We enjoyed the wonderful, warm hospitality of a farming family, south of Arrino. The remnant bush on a hill behind their home contains a wealth of

interesting plants including several different 'everlasting' daisies. We began collecting specimens for the Wildflower Show, straight away. Both here and at a few other places in the vicinity, we found *D. fraseri.* I couldn't decide whether it was var. *fraseri* or var. *ashbyi.* The flowers, on some of the plants had a pale pink tinge – a trait not seen in var. *ashbyi.* The size of the seed follicles was consistent with var. *ashbyi* – much smaller than those of var. *fraseri.* I decided to just put '*Dryandra fraseri'* on the labels for the Show specimens. Later, realizing that the location is about mid-way between the distributions of the two varieties, I began to wonder whether they could be intermediate between the two.

The next day, we visited an abandoned wildflower farm to collect some banksias: *B. ashbyi, B. hookeriana, B. burdettii* and *B. prionotes* provided plenty of large, showy orange flowers to make a splash at the show and at another property we gathered armfuls of Geralton Wax in white and various shades of pink.

Later, we were taken to a large area of remnant bush in sandy soil on the property of our hosts, further to the south west. Here, we collected well over 100 specimens, many in the Proteaceae family. I was delighted to find *D. platycarpa* – the most floriferous I've seen and the best *D. shuttleworthiana* with subtle differences in the flower and bract colours between plants. There were plants of *D. lindleyana* subsp. *media* and others which looked more like *D. cypholoba.* I didn't have time to look for (or at) more of these plants but some of them could have been hybrids between the two. I couldn't find seeds on any of them.

As well as *D. platycarpa* and *D. cypholoba* we found several other plant species which, as far as I can tell, have not been recorded from that area and are usually described as being 'confined to a small area between Badgingarra and Eneabba.' While looking at the map, I noticed that the location would probably be north of Alex Morrison National Park and Tathra National Park in a more or less straight line.

Earlier, I had contacted Jim Barrow about the possibility of mounting a display at the Wildflower Show about the connection between dryandras and the laterite gravel where so many of them occur. (See Jim's article in *Australian Plants* vol. 26 no. 208) He very kindly distilled the information into three pages with photos which I mounted. I also prepared a display of photos and some information on the 'Three Springs Three' dryandras; *D. borealis* subsp. *elatior, D. fraseri* var. *oxycedra* and *D. trifontinalis,* (which means Three Springs). I hoped to bring to the attention of the local people the fact that these three are restricted to the area and most have been lost to gravel extraction. We visited the

The Three Springs gravel pit Margaret Pieroni

gravel pit where I had seen all three growing in profusion and it is a terrible sight. Not only are there no dryandras growing there but the holes have been filled with rubbish and is weed-ridden. The plants that Alex and Elizabeth George, Shirley Loney and I originally found in 1986, south and east of Three Springs are gone, as well.

***D. comosa* in the Wongan Hills Margaret Pieroni**

After working all day to arrange, identify and label the specimens as best we could, Julie and I spent the next day at the Wildflower Show and then had

to head home. We spent the day after between Three Springs and Wongan Hills, calling in at Mount Brian on the way to our accommodation at Wongan Hills. This area, in the hills themselves, is the location of three more dryandras confined to the region; *D. comosa, D. wonganensis* and *D. pulchella.* We couldn't find any flowers on the latter until we got out of the car and walked around to the northern side of a large, sprawling shrub. There were only a few flower heads and they were not very good. The flowers didn't display the 'honey pot' formation very well.

On our last day- a long trip from Wongan Hills to Denmark, we drove through Boyagin Rock Reserve where I got some photos of *D. armata* var. *armata.* They were the best flowering plants I'd seen for a long time.

Dryandra plumosa – Type Location Found

By Margaret Pieroni, December 2012

A paper published in *Nuytsia* in November this year concerns a recent discovery of *Dryandra* (*Banksia*) *plumosa* near Lucky Bay, in the Cape Le Grand National Park.

The type specimen, in London, was collected by Robert Brown in January 1802. *D. plumosa* has not been seen in this area, since then. As it had not been recorded from any location east of Bremer Bay, Alex George thought that perhaps there had been a mistake in the labelling and that it was more likely to have been collected from the Albany (King George Sound) area where Brown had collected many specimens earlier, on the Flinders' voyage.

***D. plumosa,* showing how it received its name**
Tony Cavanagh

I heard about the discovery from Alex and I was keen to check it out for myself but didn't have the opportunity. I thought that because it had taken so long to find that it must be well away from any roads or tracks and difficult, if not impossible for me to reach. In fact, according to the paper, it is in an area 'only accessible by walking through scrub.' Because much of the area had been burnt two years before, it would have been easier for the DEC survey team to do their work. They found some unburnt, fruiting plants and were able to confirm the identity by comparing sample in the Western Australian Herbarium.

I have made many visits to Lucky Bay and surrounds, over the years. *D. longifolia* subsp. *longifolia* grows there as well as several other dryandras. The low heath on the slopes above the beach is rich in them. The *Dryandra plumosa,* however, is growing on laterite ridges around granite hills to the west and higher up.

Elizabeth George on a field survey with J. Butts, counting plants of the rare *D. aurantia*

Farewell Elizabeth George

Elizabeth died of cancer in late November, last year. She will be fondly remembered for her epic work on *Verticordia* notably the Verticordia Reference Collection in the WA Herbarium and the book *Verticordia The turner of hearts.* She was a valued member of the Dryandra Study Group for many years and accompanied me on many field trips; the ones that I have recorded in my letters to Keith, (*Looking Back* articles) and many more since then. She was a keen propagator of WA plants and grew many, including dryandras in her lovely garden. She attended ANPSA conferences over three decades. Her friendship and expertise will be sadly missed.

Hybridization in Nature

By Margaret Pieroni, June 2012

As an amateur botanist with a special interest in the genus *Dryandra*, I have spent a great deal of time in the field, since the early 1980's, collecting, photographing and illustrating these plants. The result was *The Dryandras*, published in 2006 by the Wildflower Society of Western Australia and The Australian Plants Society, Victoria, co-authored with Tony Cavanagh.

Over the years, usually with willing friends from the Wildflower Society and members of the Australian Native Plants Society (Australia) Dryandra Study Group, I visited the locations of all of the *Dryandra* taxa and re-visited most sites, many times. When I began the project, building on the information generously provided by botanists and friends on properties in the south west of the state, from north of the Murchison River to Israelite Bay, where they occur in the wild, more than twice the number of taxa were still to be described and named. Several new taxa were discovered, subsequently. Alex George published his revision of the genus in *The Flora of Australia* vol. 17B, (1999).

It was apparent, as time went on, that we were seeing more and more hybrids. Sometimes, there would be just one plant in a population that was obviously a cross between two *Dryandra* species, growing in the vicinity but there are also many hybrid swarms, as well. In these, the parents are usually present but most other plants have more or fewer characters of one or the other parent, manifested in the leaf shapes.

***D. subpinnatifida* var. *imberbis* at Banksia Farm showing mounded habit Margaret Pieroni**

Hybrids always seem to occur where there has been soil disturbance such as roadside or drain clearing and frequent fires. I have speculated that, following disturbance, re-sprouting or seedling plants appear to flower at the first opportunity after good rainfall, whether or not it is their usual flowering time. This means that several different species could be flowering simultaneously and so cross pollination occurs.

***D. subpinnatifida* var. *imberbis* showing dense packing of flowers at base of leaves Margaret**

I became aware that hybridization can be a problem for the continuing existence of rare plants in 1993, when Val Crowley, from Darkin took me to see a dryandra she'd discovered in two populations at Boolading and Bowelling. In each population, there was just one 'pure' plant of the dryandra, subsequently named *D. subpinnatifida* var. *imberbis.* Nearby, there was a thicket of *D. squarrosa,* a species that sheds its seeds annually and re-grows thickly after disturbance. In between, there was a hybrid swarm with some mounded plants with only a few lobes on the blades of the leaves up to taller plants with shorter, lobed leaves, typical of *D. squarrosa.* Both of these taxa are killed by fire, regenerating from seed. The 'pure' *D. subpinnatifida* var. *imberbis* at Boolading died soon after our first visit.

Individual flowerhead Margaret Pieroni

D. subpinnatifida var. *imberbis* differs from *D. subpinnatifida* var. *subpinnatifida* in that it has a mounded habit with the flowers at the base of the leaves and no lignotuber. *D. subpinnatifida* var. *subpinnatifida* is an upright plant with flowers in the axils of the leaves, along the stems. Intermediate forms also occur. I have also observed some hybridization in plants of the latter, for instance, at Dryandra Woodland where *D. squarrosa* is also present.

***D. subpinnatafida x squarrosa* plants Margaret Pieroni**

D. subpinnatifida var. *imberbis* is a rare plant in the wild – it may even already be extinct in its pure form. The magnificent plant pictured, was grown at the *Banksia Farm* at Mount Barker but, unfortunately, it has died and hadn't produced much seed. Attempts to propagate it have not been successful, to date.

***D. subpinnatifida x squarrosa* flowerheads Margaret Pieroni**

This 'extinction by hybridization' appears to be a real problem and no doubt, it is happening to others of our wonderful, rare plants, in other places, as well. I think we should be aware of the consequences of burning and of soil disturbance where rare plants are present and the possibility of hybridization exists.

Species that do not re-sprout, often appear in large numbers after fire but, given the decreasing rainfall, the seedlings that germinate die from lack of water and this also leads to local extinctions.

***D. squarrosa* plant at Cranbourne, note completely different habit Tony Cavanagh**

The Looking back letters (concluded)
From a letter sent 30/1/87…

I have just got my slides back from last week's trip and the ones from my trip last November-December which I described in my last letter. I've been wondering what you thought of the slides of *D.* aff. *pteridifolia* from Orchard Road (*D. lepidorhiza*) and whether my specimens of the aff. *conferta* types were helpful in sorting them out – or more confusing. I was talking to Alex on the phone, last night and he says he'll send us his findings so far, soon. I will wait until then to label some of my unknown or incorrect slides.

Last week, Shirley and I had another very successful and enjoyable dryandra trip. We left early on Tuesday morning hoping that the weather would not be too hot. We needn't have worried – it got very cold and the sky was overcast on Tuesday afternoon and on our way home on Wednesday morning. I was very lucky to have sun for the photos at Dryandra.

We drove around the Kawana Road loop east of the Wandering-Narrogin Road and I photographed *D.*

stuposa there. It was a bit disappointing. It obviously has a long flowering period; December-January-February and unlike *D. nobilis,* the flowers are scattered and not numerous on any plants. (*This must have been a dry year. I have seen them in magnificent flower since then. Flowers may be found on this species at any time of year- not just for a few weeks in late winter like D. nobilis.*) The old plants had a lot of dead leaves and bare trunks like some of the *D. nobilis.* (*D. subpinnatifida* var. *subpinnatifida, D. columnaris, D. nivea* subsp. *nivea* and *D. nobilis also occur* here). We were thrilled to see more plants further on but not so thrilled when I ran over a huge dugite (*a venomous snake*)…but I wasn't driving the car at the time - we were walking through the Wandoo woodland! Needless to say, we were very careful after that, when walking through the dryandra thickets.

Alex had told me that *D. cynaroides* grows with *D. stuposa* just beyond the Dryandra settlement. We found what was obviously the right spot, a few kms along Tomingley Road on the way back to the Wandering – Narrogin Road . There's a rise with *D. stuposa* growing thickly and also more *D. subpinnatifida*. On the north side of the road, the ground has been ripped and there are some good looking *D. stuposa* bushes without the dead leaves. I was fascinated by the new growth of the leaves around the buds of
D. subpinnatifida. It is a bright, pale green. The leaves have those narrow, slightly prickly lobes on their bases, seemingly to protect the flower buds.

Just as I was about to give up hope of finding *D. cynaroides* at Dryandra, I decided to walk up a track going off, at an angle from the south side of the road and, about 50 m up the track, I found some beautiful plants at the peak of their flowering. I thought I would have to look for the plants I'd seen at Dongalocking but, having found them at Dryandra, we just drove through the Dongalocking Reserve on the way to Tarin Rock Reserve. By that time, there was no sun, anyway, for photos.

I was sure we would find *D. cynaroides* in flower at the Harrismith patch, the next day. When we got there however, the flower heads were dry and brown. They must have flowered much earlier than the plants at Dryandra, which still had unopened buds on them. I hoped to find *D. erythrocephala* still in flower at Tarin Rock Reserve on Tuesday afternoon. We did find some plants, after quite a search but the flowers were long finished.

On the way home on Wednesday after leaving Harrismith quite early in the morning, we had plenty of time to explore some back roads. I pulled into Birdwhistle (*Yilliminning*) Rock again, for a morning 'cuppa' and, having spotted some dryandras further up Birdwhistle Road, decide to drive as far as Dongalocking Road and back through Cuballing to Wandering. In doing so, we found another marvelous dryandra road. Birdwhistle Road from Narrogin-Harrismith Hwy to Dongalocking Road is just over 4km with: At Birdwhistle Rock, sp.J (*D. meganotia*) and *D. fraseri (*var. *fraseri*), just beyond the turn in to the rock, *D.* aff. *armata,* (*D. armata* var. *ignicida*) *D.* aff. *conferta* (*D. fasciculata*), mound *D. nivea* (subsp. *nivea*) on the high ground and lower down is more sp.J and *D. fraseri.* At about 2km form Dongalocking Road, there's a huge gravel pit on the north side of Birdwhistle Road with more of the same plus *D. armata* (var. *armata*). At 1.6 km from Dongalocking Road, there's a smaller gravel pit with *D.* aff. *armata, D. armata, D.nobilis* and *D. squarrosa.*

I collected some seed from the *D. drummondii* (subsp. *hiemalis*), south east of Wandering and I hope I can grow that and sp. J (*D.* meganotia) for my garden. There won't be much room left after I've planted out the ones I've got in pots. Self sown *D. polycephala, D. praemorsa* and *D. formosa* do all right when potted up.

Keith had just been on a visit to WA with his work and had been on a short field trip before returning to Victoria. I wrote on 28/4/87….

Right after you rang me to tell me about your weekend, Shirley rang and I asked her if she could come for a quick trip to Kulin to find the dryandras you told me about. Fortunately, she was free, so we set off on the Thursday to look for sp.44 (*D. erythrocephala with yellow flowers* – var. *inopinata*) and *D. horrida.* Like you, we were very lucky with the weather. We had a lot of rain here on the Wednesday but it didn't go far into the wheat belt.

We went out through Brookton and I turned up the Quairiding road and drove for 13 –14 km but there was no sign of *D. horrida.* After another 4 or 5 km,

we turned back and stopped at the sp. No 31 (*Blue-leaf D. conferta*) location. It is about 13 or 14 km from Corrigin. (9.5 from the turn off.), so I thought that as you must have stopped there, perhaps that was the spot you meant. But we searched in vain for *D. horrida*, there. There was an odd flower on *D. vestita* and I wondered whether you'd been tired and had seen too many dryandras and you'd said 'horrida' but meant 'vestita'!

No. 31 is definitely one I haven't seen before and I'm looking forward to seeing it in flower.

Disappointed at not finding *D. horrida,* we decided to leave Kulin very early, the next morning and have a look at Charles Gardner Reserve to see if it was flowering there. Meanwhile, we went to the scenic drive and lookout at Corrigin. The aff. *conferta* (*D.* fasciculata) that I photographed there in '85 is definitely no. 6, not 31. In fact one of Alex's locations is at the entrance to the Corrigin tip which is just below the lookout. No. 27 (*D. lindleyana* subsp. *agricola*) is the one I noticed there in '85. We had already seen it at several other places we'd stopped at on the way. There's a rather good gravel pit 24.5 km west of the turn off to Quairiding, on the Brookton-Corrigin Road and it is there, with *D. vestita* and ? *D. cirsiodes.* (*Probably what we think is a hybrid of D. cirsiodes and D. purdieana*).

We went on to the Hopkins Reserve and I found your lovely big plant of no. 44 (*D. erythrocephala* var. *inopinata*) near the fence but could only see spent flowers. We looked west and south of no. 37 (*D. epimicta*) and found many small plants but no flowers. Finally, Shirley found several flowers on the last bush she looked at and, back at the car, I found a few on the far side of your big plant. We had been thinking, up until Shirley found her plant, that the trip might have been for nothing except for the beautiful Salmon Gums, Gimlets and another eucalypt with rose-pink bark which delighted us with their lovely coloured trunks.

We left bright and early from Kulin, the next day and, at 20.5 km and also 10.9 km, further north, along the Quairiding road, we found your *D. horrida.* I took a few slides and ran out of slide film so we went into town and I bought a print film for Charles Gardner Res. When we got there, we couldn't find *D. horrida* in flower – at first. Then we found a beauty. So I've got better prints that slides. I was surprised to see what the flowers are like. They are quite lovely. I suppose I expected them to look like *D. armata* or *D. cirsiodes.* I think it's a grave injustice to call that lovely thing; 'horrida' It isn't even terribly prickly. (*It has, however proved very difficult to grow*).

D. horrida **flowerhead, Margaret's "lovely thing" Margaret Pieroni**

So, we had another successful and enjoyable trip and we're planning another in early July and another in August to catch a few more dryandras that I haven't photographed, yet.

……

I have enjoyed remembering these times when I was able to build on the knowledge of dryandras so generously shared by Alex George and Keith Alcock. Alex gave me photocopies of the more than 50, undescribed Herbarium specimens with their locations, where available. Keith had records of his and other Victorian Study Group members'collections and botanist, Ted Griffin had kindly supplied information on his un-named species; B to J.

Together with several great travelling companions, I covered many kilometers throughout the south west of this state and took many photographs. I found it interesting to recount some of the problems I had with the photography. These days, with digital cameras, we don't have to worry about not having sunshine, running out of film and waiting for the films to be processed. Many of the photos in *The Dryandras* are those I mentioned in the letters. Others were taken more recently and some are of plants in my Perth garden, where I managed to cultivate over 70 taxa in the years before moving to Denmark.

I hope the locations mentioned in the letters will be of use to visitors to WA who are interested in seeing dryandras in the wild, though it has been very disheartening to re-visit so many areas that have been destroyed, since then.

I plan to visit Dryandra, Three Springs and the Wongan Hills area, in late August.

Soon after I wrote this last letter, Keith left Australia to live and work in England. Before leaving, he phoned me to ask if I would take over as Study Group leader. I agreed, with much trepidation and on condition that Tony, who had been the first leader, would be willing to share the task with me by editing and producing our newsletter. Thankfully, he was and the arrangement has continued.

Keith returned to Australia and is now living in retirement, in Perth. He is still passionate about dryandras and other members of the Proteaceae family.

A Dryandra (and other Australian plants) in New Zealand

By Tony Cavanagh, January 2013

My wife Liz and I were travelling in the south island of New Zealand in late November and planned to stay a few days in Dunedin and Invercargill, both relatively large cities in the south. Both have large and beautiful Botanic Gardens, mainly exotic plants of course, but at the time of our visits, I have to say that the rhododendrons were absolutely spectacular, some being of tree proportions and covered (and I mean all over) with huge flower heads as big as dinner plates. But to our delight, we found that both gardens, especially Dunedin, had a major section of Australian plants. Our first shock was seeing *Beaufortia sparsa* in full flower, but there were *Boronia heterophylla* and *megastigma,* beds of kangaroo paws, *Crowea saligna, Bauera sessiliflora, Brachyscome* "Break-o-Day' form, several eucalypts and the wattles including the purple foliaged 'Cootamundra' wattle, callistemons and prostantheras including spectacular plants of the hybrid "Poorinda Ballerina". Proteaceae were not forgotten, especially hybrid Grevilleas such as very floriferous "gaudichaudi" (both as the normal prostrate form but also as a 'standard' (possibly on *G. robusta*), 'Ivanhoe', 'Scarlet Sprite', and 'Superb', some unhealthy *Banksia repens,* but very healthy eastern banksias which were probably *serrata*, and then to top it off, we found a large plant of *D. praemorsa* v. *praemorsa* in full flower. It wasn't an especially good form, small yellow flower heads and small leaves but had been there for many years. Near the edge of a lawn, we found several plants of one the giant Gymea lilies of New South Wales over two metres tall and in a private garden in Dunedin, there was a large Waratah, *Telopea speciosissima,* in full flower, as good as any I have seen in Australia.

***D. praemorsa* var. *praemorsa* in flower in Dunedin Botanic Gardens Tony Cavanagh**

Sure, most of theses plants are not especially difficult to grow or uncommon, but remember that the latitude of Dunedin is below that of South-West Cape, the lowest point of Tasmania, and Invercargill is another 100 or so km further south again. Snow in winter is not uncommon in either city. Maybe, Australian plants are tougher than we think.

Dryandras on Kangaroo Island, South Australia

By Tony Cavanagh, January 2013

During another of our trips this tear, Liz and I spent a week on Kangaroo Island off the south coast of South Australia. There is much to see in the national park, several lighthouses, great coastal scenery, wineries and unusual things like a eucalyptus distillery, honey farms and much more. A highlight for us was a visit to the Stokes Bay Bush Garden on the north coast of the island. It is run by John and Carol Stanton and has been a labour of love for them for more than 25 years. Set on three hectares and including some of the natural bush, it is probably unique in that nearly all plants are named, over 1100 of them. Most plants are numbered and they give you several master lists to guide yourself through the garden, including one for

their many (seasonal) indigenous orchids. We stayed for about four hours but it wasn't nearly long enough. In addition to some 150 Kangaroo Island species (including 16 endemics), they list around 75 Banksias, 45 Dryandras (and will continue to use that name as they believe that the two groups are sufficiently distinct to warrant being kept separate), and some 145 Grevilleas. We were intrigued with the range and variety, many being in flower as it was September.

I kept a special lookout for dryandras and was able to correct some of the names but it is interesting to see that some of the old mistakes still hang on, most notably "arctotidis" for *D. brownii* and *D. hewardiana* as "longifolia". The Stantons buy as many unusual plants as they can find in nurseries but propagate a fair number from their own, especially for the inevitable replacements for dead plants, but also had several thickets of *D. formosa* and *D. praemorsa* which had come up from garden seed. Among their 45 dryandras were such uncommon species as *D. acanthopoda* (named as "kippistiana"), *D. fasciculata, D. stricta, D. xylothemelia* and the ferruginea illustrated which was a low but not prostrate plant which Margaret and I think is most probably subsp. *ferruginea.*

***D. ferruginea* subsp. *ferruginea* at Stokes Bay Bush Garden Tony Cavanagh**

A visit to Stokes Bay Bush Garden is a must if you are ever on Kangaroo Island and John and Carol are always delighted to meet other native plant enthusiasts. We only wish we had more time on the day.

Notes from members:

(From Hartley Tobin, The Gurdies, Vic.)
Our garden suffered a severe blow recently due to highway realignment which led to channeling of water onto the front of our property. I think that we lost nearly half our plants, including our only Woolemi Pine although three Bunya Bunya pines survived. I am working at reestablishing the garden although obtaining some of our more unusual plants will be a challenge. With forecast dry times ahead of us, perhaps the extra water might come in handy. (Glad to hear that you are philosophical about it, Hartley and hope that the replanting is successful. Ed.)

(From Phil Trickett, Ulladulla, NSW).
I hope your garden is surviving the dry and heat. Some of the temperatures so far are staggering aren't they. We had 46ºC last Friday which we think is an all-time record. Surprisingly, our dryandras seem unaffected at this stage. How is your garden coping?

As part of the FJC Rogers seminar on Garden Design last November, we visited Cranbourne Botanic Gardens and were able to see a number of plants labelled *D. anatona.* This was the most common dryandra in both sections of the new gardens. Having returned home and undertaken some research in your Dryandra book I have strong reservations about the labelling of these plants. The leaf shape and seed size indicate to me that the plants are most likely *D. cuneata.* Have you seen the plants? If so what are your thoughts?

(Thanks for this information, Phil. I have promised myself that I will visit Cranbourne this year in spring so I can't comment yet on the possibility of misnaming but given the rarity of *D. anatona,* it is perhaps surprising that it was so common. Have any members seen these plants at Cranbourne or can comment on their naming? Ed.)

***Dryandra ferruginea* subsp. *chelomacarpa* in Ocean Grove**

By Tony Cavanagh, January 2011

***D. ferruginea* subsp. *chelomacarpa* flowering at Ocean Grove, Oct. 2012 Tony Cavanagh**

This is one of the less common of the seven subspecies of *D. ferruginea* but when my plant flowered in spring, I was delighted with the beauty of the flowerheads (eight) and the fact that it was flowering at less than three years old. I grew it from seed from Kevin Collins and it is on a raised clay bed in near full sun among other shrubs. It is still quite small, less than 30 cm across and only 20 cm high, but so far has survived extended dry periods and I am hopeful that it will be long lasting. It is also worth growing because of its Conservation Status of Priority Three, poorly known populations but not under immediate threat. I am interested in trying to grow it from cuttings in the future.

Dryandra Study Group Report 2012

Things are much as usual with the membership numbers but subscriptions are coming in slowly, this year.

Tony Cavanagh has been producing an improved, full colour newsletter that has attracted very favourable comments from several members. It was good to have articles by three of our keenest members for the most recent newsletter.

I am considering asking members to complete a survey in order to gauge how many are growing dryandras; whether they are successfully propagating them and if they are using the 'banksia' names or not, etc.

Quite a few members have chosen to receive the newsletter by email. I have noticed that not all regional newsletters have published the new subscription fees.

Margaret Pieroni 15/9/12

DRYANDRA STUDY GROUP

FINANCIAL STATEMENT 1/7/11 – 30/6/12

Cash at bank 1/7/11		$1832.50
Income		
Members' subs.		263.00
Donations		33.00
Bank interest		.31
Sales		20.00
		310.31
	Total	2148.81
Expenses		
Printing		77.00
Slide scanner		89.00
Newsletter expenses		300.00
	Total	466.00
Cash at bank 30/6/12		$1682.81

Dryandra Survey, January 2013

Your name…….

Please complete all sections if possible, and use an additional sheet if necessary.

1 Do you grow Dryandras; if so, how many taxa (please provide a list if possible). ……

2 Please rate your success in general on a scale of 1 to 10 (1=very difficult, 10 = easy) …….

3 Are there any species/taxa which you find reasonably easy and reliable, and any that you find consistently difficult or unreliable? Please list.
EASY……
…….
HARD……
…….....

4 Do you propagate Dryandras? If so, do you grow from seed, cuttings or grafting? (Rate your success overall for each method attempted)
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…….

5 Do you still use Dryandra names? .....

6 Do you think that we should continue to use them or eventually go to the Banksia names?
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…….

7 Could you please rate your satisfaction with the Study Group - the Newsletter, communication, seed bank, particular types of articles you would like to see more of.
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…….

8 Please make any other comments or suggestions.
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Many thanks
Margaret and Tony