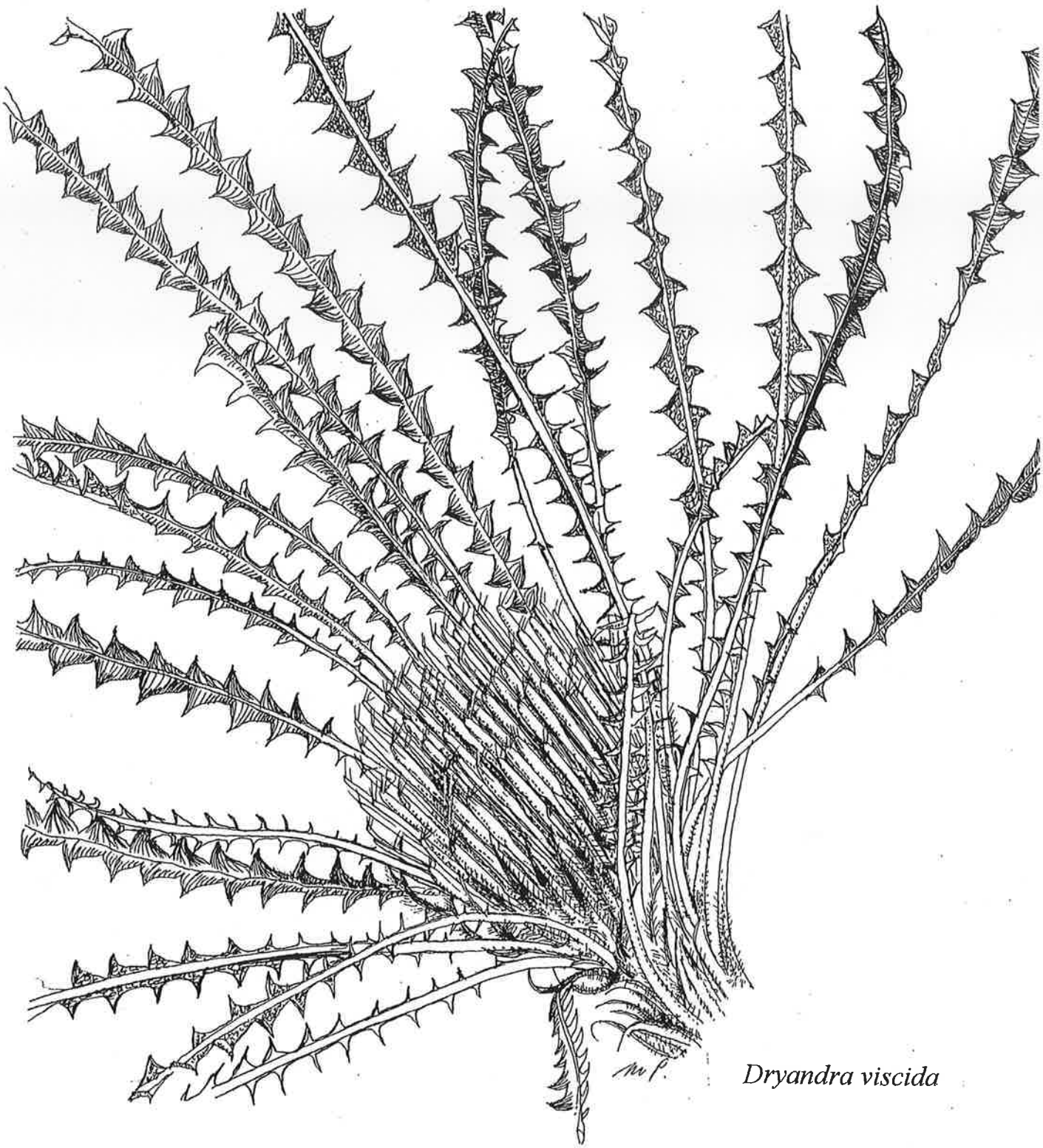
DRYANDRA STUDY GROUP
NEWSLETTER NO. 52



Dryandra viscida

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ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

Dryandra viscida is a small, mounding shrub to 1m. It grows in laterite on a few hills midway between Southern Cross and Esperance. Its flowers are golden yellow and its bracts and fruits very sticky. This very attractive shrub has been grown successfully in Victoria and is doing well in my garden. It was one of the plants that I lifted from my Perth garden and brought down to Denmark. It was in a pot for more than 12 months and did well from the moment it was moved.

Margaret Pieroni 10/9/06

DRYANDRA STUDY GROUP

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Hello and welcome to 2007.

Well of course our most exciting event in the last six months has been the publication of *The Dryandras* and its launch in November. When I look back on the years it took us to bring it to this stage, and the things we had to learn about publishing along the way, I sometimes marvel that we succeeded. Most of you now have a copy of the book and we hope that you find it useful, informative and enjoyable. One good thing about is that it is right up to date and every named species, sub species and variety is included, even though some were only officially described in December 2006. Alex George had kindly given us an advance copy of his paper describing the new taxa and Margaret had photographs of them all as well as locality maps and even some seedlings drawn. It is too early at this stage to even be thinking about reprints or revised editions and such like but we would be grateful for your comments, suggestions or even pointing out errors and omissions (almost every book has them!). We can then look at revisions if there is sufficient demand. At this stage, we have sold around 450 copies but the next 450 copies will be harder. You might like to keep *The Dryandras* in mind if you are looking for presents or gifts for friends.

In keeping with the theme of the book, Margaret has given us a very interesting account of her involvement with the Study Group and told us of the history of the discovery of a number of species. It was largely through her interest and persistence in following up leads, and Keith Alcock's surveys, that we have such a detailed knowledge of *Dryandra* localities in the wild and were able to provide such a complete coverage of photographs and ecological information for them all. However, this is not the time to sit back and rest on our laurels. Margaret also tells us of the work of Albany Rare Flora Recovery Team in monitoring and trying to establish plantations and seed orchards of several rare and critically endangered species, some of which exist as fewer than 50 plants in the wild. Another one they plan to grow in the future is *D. anatona.* As this grows well from cuttings, they may be able to select particular forms for propagation.

Thanks to Liesbeth Uijtewaal and Don and Joy Williams for information on their dryandras. Liesbeth had previously sent me some digital photos of her *D. drunmmondii* flowering in their pots and very healthy they looked. I also recently saw some of her banksias which were several years old and had flowered prolifically, again in pots in the glasshouse. She may well flower some of those difficult dryandras before those of us who are growing them in the ground! Well done Liesbeth. Don and Joy report on surveys of their wonderland of Australian flora with over 20 dryandras. It is great that they will know much better what they have. I was intrigued with Don's comment that *D. catoglypta* (which I have found to be slow and not easy to keep going) grows in two or three very different soil situations – very shallow sand over clay, deep sand over laterite and in hard laterite. So what conditions would we recommend for the garden? Is it the case of a plant growing "in spite of" and not "because of" the conditions? We would like reports on member's experiences. The colour page has that rarely grown *D. viscida,* a great small plant for dry and hot areas, as well as pictures of me at Cranbourne and of those members who were able to attend the book launch. Thanks again to Margaret for providing the photos and David Lightfoot for printing the pages. I have written an account of the launch night, the get-together we had on Sunday and our trip to Cranbourne to assist with the naming of plants and advising on the "worth" of the numerous seedling dryandras. I am now hopeful that *Phytophthora cinnamomi* may have been eradicated from the area and many dryandras will come back and recolonise it.

Happy *Dryandra* growing.

Tony

About the Book

The Dryandras is the culmination of more than 30 years of work by the Study Group leaders and members, helped by other botanists and friends.

The Dryandra Study Group was begun in 1974 with Tony Cavanagh as leader. For 8 years Tony produced newsletters containing all the information available about dryandras at the time as well as notes on growing dryandras and travels in Western Australia from members. Tony researched and wrote about the growing of Australian plants in Europe in the 18th and 19th centuries.

In 1983, the year I joined the Study Group, Keith Alcock took over as leader. His work sometimes took him from Victoria to Perth and he would take the opportunity to see as many dryandras as he could in a short time. He had collected many taxa and kept meticulous records of their locations which were to prove invaluable later.

I had decided to join a Study Group and chose Dryandra because I had several growing in my garden in Attadale, a suburb of Perth. My mother, who lived on the south coast of NSW at the time had taken up Floral Art and was very successful at it, winning quite a few prizes at the local shows. At one, she overheard a woman say, "Yes, but she has all her stuff sent over from WA". Most of the dried flowers that I sent to Mum were dryandras.

During the next few years Keith and I corresponded and I began doing drawings of the dryandras in my garden. It was about this time that Keith mentioned the book project and asked me if I would co-author and illustrate it. At the time, there were only about 50 dryandras described but many more specimens in the Herbarium. Alex George had generously agreed to allow us to use his descriptions of the taxa and gave us photocopies of the undescribed specimens. These were numbered from 1 – 53, (several more were discovered later, before Alex finished his revision in 1996 for publication in *The Flora of Australia*).

I first met Keith during one of his flying visits to WA in 1984 or 5, when he showed me 2 cartons of specimens he had collected. I found it hard to distinguish between them. I couldn't imagine ever being able to identify dryandras. However, every journey starts with a single step, as they say and, with various travelling companions I began to search out dryandras in the wild to photograph them and to collect material for the leaf and seed drawings. The precise locations of many of them were unknown so it was a matter of re-locating them and making fresh collections for Alex.

In 1986, Keith and I joined the Wildflower Society's October long weekend excursion to the Stirling Range. (Guess who was on the Wildflower Society committee arranging excursions at the time!) Keith and I were hoping to find two dryandras in the Stirlings. One was nicknamed the "Cactus Dryandra" because of its growth habit. It had been seen by a Study Group member who described the location as at the back of a gravel pit at the foot of Twin Peaks. There is no such geographical feature on the map and Twin Hills is too far from the main road through the range to be the right location. We set out from east to west on Stirling Range Drive and at a certain point we noticed that two peaks, Mt. Gog and Talyuberlup Peak were joined by a saddle and next to the road was a barrier blocking off a dis-used gravel pit. At the far end of

the disturbed area we found the plants – since named *Dryandra anatona*. They were not in flower so I asked friends who lived nearby and often visited the Stirlings to keep an eye on them for me. Much to my surprise, they rang the following March with news of the plants' flowering. I arranged with a friend to go down there to collect it straight away. Unfortunately, probably because of the gravel pit, the dreaded *Phytophthora* had been introduced and the whole population, what remained of it, was wiped out subsequently.

The other dryandra we wanted to find was a form of *Dryandra ferruginea*. We knew approximately where to look for this one and we found several plants in flower. It is subsp. *pumila*.

My most frequent travelling companion and dear friend was the late Shirley Loney. On one of our trips we were looking for *Dryandra preissii*, west of Woodanilling at one of Keith's locations, when Shirley discovered something a bit different growing nearby. The leaves were similar but lacked the bipinnate lobes at the top. We collected a specimen for Alex even though it was not flowering. The following year, while Alex was in WA on his dryandra collecting trip from Canberra, we met with a local man, Ray Garstone to look for a rare verticordia in the same vicinity. We had found the dryandra in bud and when we showed it to them, Ray told us about a nearby reserve where it was also growing. Since then I have found three more populations. Alex named it *Dryandra lepidorhiza.*

Among Keith's collections of specimens was a leaf and a few bracts from a plant that Study Group member, John Cullen had found "near Pingrup". I carried them with me on my trips along with the photocopies of the un-named specimens and Keith's list of locations. Early in 1986, Shirley and I were on our way to stay with friends in Newdegate. As we passed through Pingrup I remarked that it was a pity that we didn't have a more precise location for John's plant as we had plenty of time to search. Very soon I spotted some unusual dryandras on the side of the road. The leaves and the papery bracts on the spent flowers matched the specimens and I yelled, "This is IT!" I phoned Keith when we got back to Perth and he guessed that we had found IT even though he hadn't known where we had been. This dryandra was known as IT until it was named *Dryandra idiogenes*.

In 1987 I had a phone call from Keith to say that he was being transferred to the UK and he asked if I would take over as leader. With much trepidation I agreed, providing that Tony would be willing to be the newsletter editor. Soon after, Keith suggested that Tony should co-author the book, as well.

Alex's revision was published in 1996 and we continued searching out dryandras in the wild. Our newsletter no.30 was in the form of an illustrated key, using drawings of leaves to be used until the book was published. Six new taxa were found and described, after that and the key was up-dated.

Botanist Ted Griffin had made collections of several un-named dryandras and he made his information available to us. He also identified the dryandras we found during a trip to the Badgingarra area that he led in the early 1980s.

Ted's sp. J was named *Dryandra meganotia*. Over the years we found many populations of this species. There appears to be three forms with slight differences.

It was Ted's idea to draw the seedlings of each taxon. I managed to germinate the seeds of most of them and, in some cases grow them on in my garden. Study Group member, Hartley Tobin, in Victoria, took on the task of examining seed capsules to see whether they usually had one or two seeds per capsule. He also germinated many of them and sent the seedlings to me to draw.

Every exciting trip brought new discoveries – if not a new taxon then hybrids or unusual forms and almost always, range extensions for many taxa.

Recently, Kevin Collins found *Dryandra longifolia* subsp. *calcicola* near Quagi Beach, many kms west of other collections. Brian Moyle and I found subsp. *archeos* on The Diamonds Hill, in Cape Arid National Park – previously only collected from Mt. Ragged.

At Mt. Arid, we found *Dryandra falcata*. It had been collected by Robert Brown at Lucky Bay in 1802 but not seen there since then. The easternmost collection in the WA Herbarium was from the Fitzgerald National Park. We also collected *D. nervosa* from the Cape Arid area. It had not been collected east of Esperance.

These are just a few of the discoveries we have made over the last 30 years or so. I'm sure there will be many more in the future. Since I have been a member of the Study Group, I have been describing my adventures in the newsletters. Almost every dryandra has a personal story behind it. I owe grateful thanks to the many friends who have shared my enjoyment of dryandra hunting. Alex George was extremely generous with his knowledge and in allowing us to use his descriptions. Keith Alcock did much of the ground work and Tony, not only most of the writing but also the very important work of organising the publishing – a task that would have been beyond me.

Many thanks to you all.

Margaret Pieroni 25/9/06

REVIEWS

The Dryandras

by Tony Cavanagh and Margaret Pieroni

Published by Australian Plants Society (SGAP Victoria) Inc and Wildflower Society of Western Australia Inc 2006.
237 pages, hard cover,
colour illustrations.
Member's price $64 plus postage.

The long awaited publication. '*The Dryandras*' has finally arrived and the wait has been well worth while.

To produce any work of quality takes dedication and painstaking research and that is just what is in abundant evidence in this book on a fascinating genus of endemics from the west.

We have seen in recent times excellent publications on different genera of Australian flora ('Brachyscomes', 'Verticordia', 'Grevillea' etc.) that are definitive, are both botanical and horticultural, useful as reference books or applicable in the field. They can be referred to by the enthusiast or botanist as they have keys; useful in the nursery or garden, with excellent illustrations and horticultural notes.

The knowledge of Australian flora has come a long way in the last 40 years, and picture books displaying the beauty and diversity of the flora have played an important role and still have a place in the education of viewers about the richness of plant life on this driest vegetated continent. Today 'plant people' want more. They want to know about all aspects of a genus and the range of species within that genus. '*The Dryandras*' will certainly fill that requirement and it will go a long way to informing us about the species we meet as we scratch around the south west of WA. It will also give the planter of these treasures something to search for in nurseries, and we know what happens when a demand is created – the range of species is increased and in some cases important conservation work is achieved. However, beware! 'The Collector' will stop at nothing to obtain!

Focussing on the book – from the front dust cover to the 'mug shots' on the inside flap, the photography is excellent. There are several photos of the plants – from a close-up of the flower to the habit of the species, and all large enough to see, an all too often restriction when costs are mounting. The illustrations of the leaf, seedling, follicle and seed for each species assist in diagnosing the specimen and it places this book amongst others on the top shelf of specialist books on Australian flora.

The text is thorough – defining the name, where first collected, a botanical description, distinguishing features, similar species, distribution, conservation status, habitat, flowering period, cultivation notes , and a location map accompanies each species.

So how has this wealth of information been amassed? Both of the authors have spent decades involved in their study of the genus in the field, nursery and garden. Both have been leaders for considerable periods of the Dryandra Study Group since Tony initiated it in 1974 and they have extensive field experience, observing, collecting and photographing. Margaret is well known as an outstanding botanical artist and her achievements include the paintings of all of the Verticordia published in a book of that name. Tony has revelled in researching the collecting and naming of Australian flora since first specimens were taken and we have been fascinated by his articles, papers and addresses over the years so the reader will not be disappointed in this aspect of '*The Dryandras*'.

The biology and ecology of the genus is explained and there is a very useful calendar of the flowering times of species as well as notes on the various bio-regions of southwest WA. A most useful table depicting the horticultural aspects of each species of the genus will aid in selection and enable the grower to at least provide as good conditions as possible for their growing. A selection of species is recommended from three different height groupings with coding to inform the grower of particular requirements or expectations of the plants chosen. As you would expect, there is a thorough treatment of the propagation and maintenance of the genus from the collection of seed to the demise of a species.

The botanical organisation of *Dryandra* has it classified into three sub-genera and 24 species. Each of these is explained and accompanied by line drawings of the flower and individual florets so that the subdivisions can be clearly seen and understood. The botanical key follows as a logical conclusion to the identification process. I find the glossary of botanical terms included here annoying as it is hidden and difficult to locate when stumped by botanical jargon. It would be easier to locate at the start or end of a book. The alphabetical treatment of each species enables speedy reference.

Treatment of the detail aligns with that experienced in similar publications, making this book an invaluable addition to the library, and for those with a serious interest in Australia's unique flora this is another 'must have'. It's not exactly a glovebox book unless you travel by truck but it certainly needs a prominent place in your library box when visiting the west and would be invaluable in identifying digital images on returning home.

Congratulations to the authors who are located on opposite sides of the continent, on a magnificent collaborative effort to produce such a work of quality.

– Trevor Blake

Flora of the Otway Plain & Ranges 1

by Enid Mayfield

Published by Linton Press 2006
219 pages, soft cover, colour illustrations
Member's price $40 plus postage.

This is a truly delightful book, both to look at and to use. It is the first of a planned two-volume coverage of plants of the Otway plain and ranges, an area stretching from Port Phillip Bay to near Portland.

The region is rich in orchids, with over 130 species recorded, and includes a number of rare and endangered plants, yet so far there has been no detailed botanical treatment of its plants. Enid Mayfield has set out to correct this, using fine art illustrations of flowers, floral parts, fruits, seeds, root systems and even the insect pollinators to relate the plants to their environment and to help users identify them in the field. This volume describes the monocotyledons, the orchids and members of the iris and lily

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Rare Dryandra Recovery

In September last year I joined two other members of the Department of Environment and Conservation (DEC *ex* CALM), Albany Rare Flora Recovery Team to monitor *Dryandra ionthocarpa* subsp. *ionthocarpa* near Kamballup.

We went first to the population a little to the west of the one where I had collected it with Peter Luscombe in 1988. I had not previously visited this site. The team had 'caged' with rabbit netting, several mature plants and an area where a plant had been burnt and seedlings are being monitored. Seedlings that have emerged since the natural deaths of several other plants have been tagged. These are very few. Most dead plants have no seedlings coming up around them. There had been no changes since the previous check. The plants are generally smaller and more spread out, in a larger area than those in the population that I was familiar with, which we visited before going on to a location where plants are being grown *ex situ*. These plants were planted by the RFRT volunteers, supervised by DEC staff. They are protected from herbivores with rabbit netting and watered by drip lines from a tank on the site. There have been a few losses but generally the plants are looking good and none had died recently.

Further west, in another secret location the Group is growing the critically endangered *Dryandra montana* in a seed orchard. This dryandra only occurs on peaks of the Stirling Range such as Bluff Knoll where I photographed it in February, 1989. Since then the population has dwindled to fewer than 50 mature plants in late 2005, thanks to the combined effects of *Phytophthora* fungus disease and fires in 1991 and 2000. Because of the extent of the disease infestation in the Stirlings, the site chosen for re-location is a considerable distance from the natural population. It is on private property, surrounded by healthy vegetation which should provide shelter and food for pollinators as well as a little shade and wind protection.

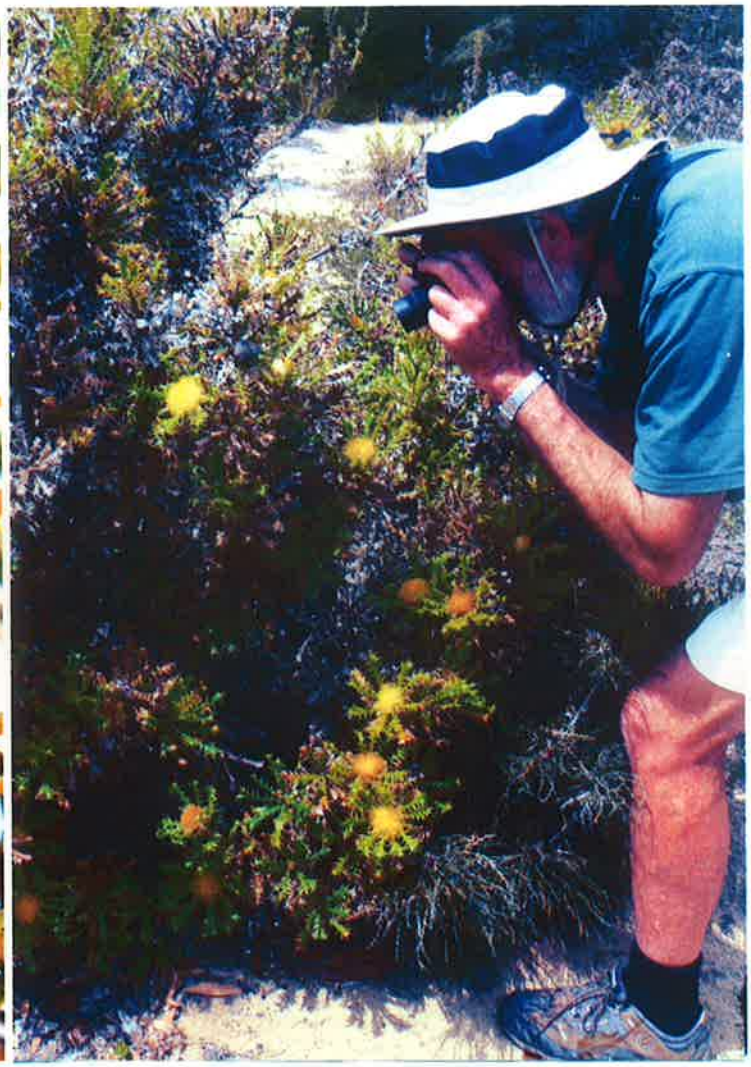
It was good to see about 100 plants, most almost 1m. tall looking so healthy – some bursting out of their 'cages'. They had been attacked by leaf-sucking weevils and other pests in the summer of 2005. These were removed by hand and, following the record rains of April, the plants put on new growth and haven't looked back since. The number of plants in the seed orchard is double that of the wild populations.

The team is to be congratulated on the wonderful job they are doing to conserve these dryandras. I believe they are going to be growing *Dryandra anatona*, another critically endangered species from the Stirlings, soon, as well. I hope to be involved in this vital work in the future.

Margaret Pieroni 25/10/05

Reference: *A safe haven for threatened plants*, Anne Cochrane and Sarah Barrett, *Landscope* Summer 2005 – 2006.

Dryandra viscida. In cultivation, Denmark, August 06



Tony photographing *Dryandra falcata* at Cranbourne

Study Group members at the book launch, 17/11/06.

Back row from left: Paul Kennedy (who launched the book), Neil Marriott, David Lightfoot, Bob O'Neill, Hartley Tobin.
Middle row: Kath Sykes, Christine Wadey, Margaret Pieroni
Front row: Max McDowell, John Wadey, Tony Cavanagh

News from Members

From Liesbeth Uijtewaal, Neer, The Netherlands:

The plants are sitting quietly in the greenhouses now; many plants have been planted in the ground in the large one, some having already dropped dead there and have been taken out again – mainly grevilleas, some others are doing very well, like *Acacia podalyriifolia* and some haven't decided what to do yet. At least all wattles are budding up very well; they will put on quite a show in spring, if we get a heater fixed in time, that is. It will be installed next week so there shouldn't be a problem really.

The weather has been unusually mild so far, you don't hear me complain! *Hakea* 'Burrendong Beauty' is in full flower already , it normally doesn't flower until mid-winter.

Most of my dryandras are doing well apart from *D. erythrocephala* subsp. *erythrocephala*. I had many seedlings but unfortunately only one pot with three seedlings survived. They are extremely sensitive to other-than-dry conditions, apparently. Others, like *D. obtusa, D. quercifolia* Pink, *D. pseudoplumosa, D. lindleyana* var. *sylvestris, D. tenuifolia* var. *reptans, D. nobilis, D. hirsuta, D. proteoides, D. baxteri, D. drummondii, D. drummondii* subsp. *hiemalis, D. ferruginea, D. serratuloides* subsp. *perissa* and *D. tortifolia* are doing quite well. *D. mucronulata* subsp. *retrorsa, D speciosa* and *D. catoglypta* are less vigorous. No signs of flowers yet but then, that would be very quick, wouldn't it? Most of them were sown in November 2004 from seed you sent me.

I have harvested many seed heads from *D. praemorsa.* It's amazing to see how easily it sets seed. The one seed I harvested last year germinated even though the seedling didn't survive for long. I'll give it a try again this year.

There are a lot of buds on my banksias; *B. telmatiaea* has numerous buds but they develop very slowly. I hope they'll make it; I can't wait to see it flowering. *B. brownii* is a beauty with 8 blooms, (first flowers) dripping with nectar. The plant itself is getting rather leggy. I hope it re-grows easily from leafless stems after pruning.

7/11/06

From Don and Joy Williams, 'Hi-Vallee', Badgingarra WA:

We, along with Cathy Himbeck from DEC (Dept of Environment and Conservation – formerly CALM), have been counting and mapping rare flora in 'Hi-Vallee'. We have a far better idea of where *Dryandra catoglypta* grows now. There just might be an article for the newsletter. In 'Hi- Vallee', on the eastern side, *D. catoglypta* is restricted to very shallow sand over clay. But up on the top of the mesa it is growing in sand to perhaps 1/2metre over laterite and, in other cases in hard laterite. The biggest plant appears to be in the deepest sand.

The visitors are still coming. We have had a good few schools. Today we started harvesting oats. Considering this is the driest year since Williams have been at HI-Vallee, (40 years) the oats is quite OK – not a bumper crop but acceptable. We do live in a wonderful bit of the world.

DRYANDRA BOOK LAUNCH, DRYANDRA STUDY GROUP GET TOGETHER AND CRANBOURNE REVISITED

As we mentioned in the last Newsletter, Bloomings Books, through principal Warwick Forge, in conjunction with the APS Maroondah Group, arranged for a "super" book launch on the night of Friday November 17. Four books, including *The Dryandras* were launched before a large and appreciative audience of over 100 people and many copies of all titles were sold. The other titles were a 3rd edition of the standard book *Grow what where* which now boasts an interactive CD ROM to speed up the process of finding the right plants for special garden situations, a very useful book for our area, *Eucalypts of Victoria and Tasmania* and a new edition of an important Victorian orchid book *Wild Orchids of Victoria* which has been out of print for some time. All the authors were present and we each made short responses to the launch of our respective books. Paul Kennedy, President of APS Victoria in introducing *The Dryandras* was very complimentary to both Margaret and myself for the work that we and the Study Group had put in to producing the book which was a new venture for both APS Vic. and the Wildflower Society of WA in that they loaned money to authors who then had to arrange for the publishing. It was a new venture for us, too, but one that we can now say we enjoyed! We were very happy with the final "look" of the book, and more importantly, both Societies were very pleased with it as well, and so far all reports have been very positive. Elsewhere in the Newsletter I have enclosed a copy of the book review by Trevor Blake from the December issue of *Growing Australian*, the quarterly newsletter of APS Vic.

Eight Study Group members and some partners were present and we were able to chat and exchange experiences. A photo of the group of us, courtesy of Meryl Tobin who took quite a number of photos of the evening, is part of the colour page.

***Dryandra* Get Together, Sunday 19 November.**

Following the book launch, members who had expressed interest in a get-together gathered at Tony's house in Ocean Grove on Sunday morning. Some had brought their copies of our book for signing and we all enjoyed a good chat over morning tea, often centring on the prevailing drought conditions in Victoria and the effect that the water restrictions were having on gardens. This was followed by a walk around Tony's garden which like all others was suffering from drought though thankfully as yet, no dryandras have succumbed. Tony's garden is now over 25 years old and has changed a lot over the years, especially with shading due to several large trees and drying out of the soil by extensive tree and shrub roots, so that he is no longer able to try the range of dryandras he would like. Nevertheless, many of the original trees and shrubs are still going strong, albeit after some severe pruning over the years, and dryandras such as *D. longifolia, D. baxteri, D. foliosissima, D. nervosa, D. cirsioides, D. nivea, D. lindleyana, D. fraseri, D. fraseri* var. *ashbyi* and *D. nobilis* are between 15 and 25 years old. Some are still flowering, even though they are around 20 years old, especially *D. nobilis, D. baxteri, D. longifolia, D. foliosissima, D. nivea* and *D. lindleyana* and *D. fraseri* var. *ashbyi,* and several *D. formosa* have lived to at least 25 years although finally dying due to dry conditions.

After lunch, the party visited the gardens of two local native nurseries, both of which specialise in grafted plants of the more spectacular WA plants of the *Darwinia, Verticordia, Chameleucium* genera and to a lesser extent, some members of the Proteaceae such as *Hakea* and *Grevillea.* The first was the garden of Doug and Pete McKenzie (father and son) who together with Doug's wife Jan have been growing Australian plants since the mid 1970s. Long-time members of the Study Group may remember that Doug was one of the pioneers of grafting native plants in Victoria in the early 1980s when he did extensive trials on Banksias and Dryandras as well as developing a method of cotyledon grafting Sturt's Desert Pea which is still probably the best way to grow them. One of his grafts, *D. praemorsa* on *Banksia spinulosa* lived for more than 20 years. He later branched into *Darwinia, Verticordia* and *Hakea* and we were treated to an eye-catching display of rare and spectacular forms of these genera growing in the garden. Doug and Pete willingly answered numerous questions about growing many of the unusual forms but

Dryandras were not forgotten because Doug has two quite uncommon species, both more than 20 years old and both growing in very dry soil which gets little artificial watering. The first is *D. mucronulata* subsp. *retrorsa*, a Declared Rare taxon in WA, because much of its habitat has been cleared in recent years. For many years, Doug's was the only plant known in cultivation. It is a medium bushy shrub with numerous larger flower heads than in subsp. *mucronulata*, and is definitely the better form. The other plant is *D. hirsuta* from the Stirling Range. Again over 20 years old and in very dry shade, this is also quite uncommon in gardens but it still flowers well although we weren't able to find any seed. . Unfortunately, it is also very prickly so searching for seed is a painful business. I have promised to try it from cuttings this year in September.

The other garden was the several acres at Phillip Vaughan's native nursery in Curlewis, a few kilometres from Ocean Grove. On the trip there we had to cross the Bellarine Highway which was exceptionally busy that afternoon and as a result (because I haven't had much experience in leading groups), some of the party became separated and didn't find the Nursery. Phillip very kindly guided us round and the display was breathtaking. Phillip formerly had a major nursery at Pomonal in Victoria's Grampians and he insists that he was growing even more species there than he is here, a statement I found hard to believe as I struggled to keep up with one spectacular plant after another. Phillip is also a long-term "grafter" and has dozens of the best forms of grafted Grevilleas and many rare and uncommon WA species through his connection with George Lullfitz. Margaret had great difficulty in believing the range and variety of WA plants she kept seeing! As Pete McKenzie also grows plants for him, we saw many of the same beautiful Verticordias and Darwinias as we had seen at the McKenzie garden. Phillip uses the gardens as a display garden and to trial possible new introductions. It has been a major challenge for him as the site is relatively wind swept and the soil is heavy and clayey, and having been sown to pasture, had a high phosphorus content. Raising the beds and bringing in some better local soil has helped but many of the grafted plants have done remarkably well despite all these handicaps and we all were left somewhat shell shocked after seeing so many fabulous Australian plants - the garden is a great endorsement of the beauty of Australian plants. There were several of the smaller dryandras in the gardens but Phillip was also having a special sale and several of us got some great *Dryandra* bargains. The challenge now is to keep them alive until we get enough rain to put them out in the garden.

Cranbourne Revisited

I recently had contact with Warren Worboys, Curator of the Cranbourne Annexe of the Royal Melbourne Botanic Gardens where we still have the original *Dryandra* collection. He was looking for historical photographs of the early days of the plantings which Margaret and I were able to give him but also asked if Margaret and I would be available to help him name some of the seedling plants that had come up in the plantation and also some of the original material where the birds have removed every single label. We did this on the Monday and Margaret flew out later that day so we had a fairly hectic though enjoyable week end. In an earlier Newsletter, I think that I mentioned that the original bush was encroaching into the plantation area and as we had had extensive infestation by *Phytophthora* in the 1990s, we had lost many of the dryandras. I am pleased to say that the dryandras are fighting back and we were quite astonished at how many seedlings were apparent, albeit of a limited number of species, and how many of the original plants had actually survived. Warren was especially interested in the species that were rare and endangered in WA or were uncommon in gardens and after we named a plant, he wrote the information on a heavy-duty stake which we believe will not be removed by birds or animals.

Some of the most interesting plants were several of the original *D. drummondii* subsp. *drummondii* in full flower (in all shades of red, pink and brown), *D. falcata* also in flower from both original plants and numerous seedlings (a species that I cannot keep alive), *D. squarrosa* (prolific as a weed as well), a giant form of *D. cirsioides* over 2 metres tall, with dense branches over 20 cm in diameter, giant plants of *D. nivea* subsp. *uliginosa* 2 metres by 2 metres, the rare *D. viscida* which had flowered earlier, very spreading plants of *D. calophylla* with many pink-brown flower heads peeping out of the sand and *D. lepidhoriza* and *D. preissii* both in flower and growing strongly. The original plants of *D. subpinnatifida*

var. *imberbis* which first gave us a clue that there might be two forms of this species, are still there and flowering. They are only about 50 cm high, in contrast with var. *subpinnatifida* which is over 1 metre. A couple of plants of *D. ferruginea* subsp, *pumila* are growing well, have flowered and set seed. This is one of the most attractive and easiest to grow of the subspecies of *D. ferruginea.* It is rare in its natural habitat in the Stirling Range. Two other subspecies are still going strong – subsp, *ferruginea* and subsp. *tutanningensis.* We were hoping to find more than one of these as the species appears to be self-sterile and more than one plant is needed to produce seeds.

In a section of the plantings from the mid 1980s which was unfortunately somewhat low-lying, most of the dryandras had died. This included bushy shrubs like *D. acanthopoda,* a beautiful row of *D. columnaris* and even most of the "mound" species like *D. nivea* subsp. *nivea.* However, in a most unlikely position, under a large "feral" *Banksia marginata,* but on higher ground, we discovered a healthy plant of *D. xylothemelia.* This is extremely rare in cultivation and Kevin Collins has had trouble growing it in WA. There are also some *D. pteridifolia* subsp. *inretita* plants which we had mis-identified as *D. fililoba.* This is one of the recently described (2005) dryandras which is difficult to separate from *D. fililoba* at an early stage of growth. Another thing which was remarkable, and which bears out Margaret's observations in WA, was the numerous seedlings of *D. quercifolia* origin most of which appear to be hybrids. Given half a chance, *D. quercifolia* seems to hybridise with whatever is at hand! It will be interesting to see what flowers will be produced.

One of the reasons that Warren wanted us to walk around with him was that the Gardens staff are in the process of removing "feral" plants from the plantation area. Some genera are particularly aggressive invaders, some of the Persoonias which we might find are impossible to grow from seed are rapidly spreading from seed throughout the area. Likewise some Petrophiles, Lambertias, even a few Hakeas and yes, even Dryandras are not exempt. The plants that the staff will cut down and remove are marked with a blue dye and I was surprised to see *D. cuneata* plants with this dye marking. Warren pointed to dozens of seedlings of this species, also *D. squarrosa, D. nobilis* and even *D. falcata.* He just wanted to make sure that if they began culling seedling Dryandras, they wouldn't be cutting out any rare and endangered species! As far as we could see, none of the rarer *Dryandra* species are a problem but it was astonishing to see giant plants of *Lambertia echinate* var. *citrina* (designated rare in WA) in full bright yellow flower, *Petrophile linearis* and *Petrophile longifolia* also in full flower being considered for demolition. It was a busy but enjoyable day, however not helped by the fact that it was very hot and dry with the temperature in the high 30s. I was glad to get home and I am sure that Margaret was glad to reach her hotel room after a very busy four days.

Tony Cavanagh