

DRYANDRA STUDY GROUP

NEWSLETTER NO. 29



Dryandra trifontinalis

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SOCIETY FOR GROWING AUSTRALIAN PLANTS

DRYANDRA STUDY GROUP

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Welcome to our first Newsletter for 1996.

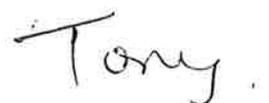
I suppose the major news is the long-awaited publication of Alex George's revision of Dryandra. The full account will appear in Vol. 17 of the *Flora of Australia*, probably around September this year. In the meantime, Alex has published a complete key and descriptions of all new species, subspecies and varieties (63 all told) in the latest issue (Vol. 10, No. 3) of *Nuytsia*, the journal of the West Australian herbarium. To help all of us come to grips with a genus which has suddenly doubled in size, Margaret has prepared a special illustrated key of some 23 pages, along with other descriptive and illustrative material. This will be published within the next couple of months and accounts for the slenderness of this issue. I hope to produce 3 Newsletters in 1996 so the 1st and 3rd will be smaller than usual.

For this Newsletter, Margaret has compiled a list of the new names in relation to Ted Griffin and Alex George numbers which most members are familiar with. She has also included corrections and amendments to Rob. Sainsbury's and Alex George's books giving new names for many species which are based on the review. I have produced an alphabetical list of all species with their numbers in the full revision. This will be the basis for an index to the illustrated key newsletter. The other items include an account of Margaret's and Elizabeth George's trip to Victoria for the SGAP Conference and their subsequent visits to many gardens. I also attended the conference and was most intrigued that we seemed to be growing in Victorian gardens many more West Australian plants than were grown in West Australia! In fact, many people asked 'Where are all the Victorian flowers?'. I have also produced a summary of the results of our last Dryandra survey. Even though the number of returns was relatively low, we are growing over 60 species including some of the rare and endangered ones. Particular thanks to everyone who contributed.

And finally there are still some outstanding subs. If an X appears in the box below, you are unfinancial and this is your last newsletter. Please forward all cheques to Margaret.



Happy dryandra growing,



Tony Cavanagh
Newsletter Editor

DRYANDRA-GEORGE NUMBERS

STUDY GROUP 'NICKNAMES' AND E. GRIFFIN SPP. B-J

1	<i>acanthopoda</i>	
2	<i>conferta</i> var. <i>conferta</i>	
3	<i>porrecta</i>	
4	<i>columnaris</i>	
5	<i>rufistylis</i>	'Giant seneciifolia'
6	<i>fasciculata</i>	
7	<i>echinata</i>	sp. B
8	<i>armata</i> var. <i>ignicida</i>	
9	<i>glauca</i>	sp. C
10	<i>hirsuta</i>	sp. E
11	<i>borealis</i> subsp. <i>borealis</i>	sp. H
12	<i>montana</i>	sp. F
13	<i>pallida</i>	
14	aff. <i>fililoba</i>	(prostrate plant)
15	<i>stricta</i>	sp. I
16	<i>viscida</i>	sp. D
17	deleted	
18	<i>shanklandiorum</i>	
19	<i>ferruginea</i> subsp. <i>tutanningensis</i>	
20	<i>borealis</i> subsp. <i>elatior</i>	sp. H
21	<i>conferta</i> var. <i>conferta</i>	
22	<i>pteridifolia</i> subsp. <i>vernalis</i>	
23	<i>fraseri</i> var. <i>oxycedra</i>	'Tree fraseri'
24	<i>nobilis</i> subsp. <i>fragrans</i>	
25	<i>wonganensis</i>	
26	<i>cypholoba</i>	
27	<i>lindleyana</i> subsp. <i>agricola</i>	
28	<i>nivea</i> subsp. <i>nivea</i>	'Mound nivea'
29	<i>lindleyana</i> subsp. <i>sylvestris</i>	
30	<i>squarrosa</i> subsp. <i>argillacea</i>	
31	<i>conferta</i> var. <i>conferta</i>	Rare blue-grey leaf form
32	<i>platycarpa</i>	
33	<i>conferta</i> var. <i>conferta</i>	
34	<i>ferruginea</i> subsp. <i>chelomacarpa</i>	
35	<i>ferruginea</i> subsp. <i>flavescens</i>	
36	<i>corvijuga</i>	
37	<i>epimicta</i>	
38	<i>octotriginta</i>	
39	<i>fililoba</i>	
40	<i>ferruginea</i> subsp. <i>obliquiloba</i>	
41	<i>lepidorhiza</i>	
42	<i>trifontinalis</i>	
43	<i>xylothemelia</i>	
44	<i>erythrocephala</i> var. <i>inopinata</i>	
45	<i>meganotia</i>	sp. J
46	<i>kippistiana</i> var. <i>paenepeccata</i>	
47	<i>pseudoplumosa</i>	
48	<i>anatona</i>	'Cactus'
49	<i>ferruginea</i> subsp. <i>pumila</i>	
50	<i>idiogenes</i>	'It'
51	<i>sessilis</i> var. <i>cygnorum</i>	
52	<i>sessilis</i> var. <i>cordata</i>	

53	<i>tenuifolia</i> var. <i>reptans</i>	
54	<i>ionthocarpa</i>	'Kamballup'
55	<i>conferta</i> var. <i>parva</i>	

Note: there are other new taxa that have not been given numbers.

Corrections and amendments to R.M.Sainsbury, *A Field Guide to Dryandra* (1985)
 pages cover *D serratuloides* subsp. *perissa*

4-5	<i>brownii</i>
6-7	<i>armata</i> var. <i>armata</i>
8-9	upper plate: <i>fraseri</i> var. <i>fraseri</i> ? lower plate and leaf may be <i>fraseri</i> var. <i>ashbyi</i>
16-17	<i>squarrosa</i> subsp. <i>squarrosa</i>
26-27	<i>conferta</i> var. <i>conferta</i>
32-33	appears to be <i>drummondii</i> subsp. <i>hiemalis</i>
34-35	<i>erythrocephala</i> var. <i>erythrocephala</i>
38-39	<i>ferruginea</i> subsp. <i>ferruginea</i>
46-47	<i>fraseri</i> var. <i>fraseri</i>
48-49	<i>wonganensis</i>
50-51	<i>purdieana</i>
52-53	<i>kippistiana</i> var. <i>kippistiana</i>
54-55	<i>longifolia</i> subsp. <i>longifolia</i>
58-59	<i>mucronulata</i> subsp. <i>mucronulata</i>
62-63	top: <i>lindleyana</i>
64-65	<i>nobilis</i> subsp. <i>nobilis</i>
68-69	<i>plumosa</i> subsp. <i>plumosa</i>
72-73	<i>praemorsa</i> probably var. <i>splendens</i>
74-75	<i>porrecta</i>
78-79	top: <i>drummondii</i> ?subsp. <i>drummondii</i> lower and leaf: <i>nervosa</i>
86-87	<i>columnaris</i>
90-91	<i>serratuloides</i> subsp. <i>perissa</i>
92-93	<i>sessilis</i> var. <i>sessilis</i>
96-97	<i>speciosa</i> subsp. <i>speciosa</i>
98-99	<i>squarrosa</i> subsp. <i>squarrosa</i>
102-103	<i>subpinnatifida</i> var. <i>subpinnatifida</i>
106-107	<i>tenuifolia</i> var. <i>tenuifolia</i>
112-113	<i>stricta</i>
114-115	<i>hirsuta</i>

Corrections and amendments to A.S.George, *An Introduction to the Proteaceae of Western Australia* (1984)

plate 42	<i>fraseri</i> var. <i>ashbyi</i>
plate 43	<i>sessilis</i> var. <i>flabellifolia</i>
plate 46	<i>nobilis</i> subsp. <i>nobilis</i>
plate 47	<i>squarrosa</i> subsp. <i>squarrosa</i>
plate 48	<i>kippistiana</i> var. <i>kippistiana</i>
plate 51	<i>speciosa</i> subsp. <i>speciosa</i>
plate 57	<i>ferruginea</i> subsp. <i>tutanningensis</i>
plates 58, 59	<i>drummondii</i> subsp. <i>drummondii</i>
plate 61	<i>lindleyana</i> subsp. <i>lindleyana</i> var. <i>mellicula</i>

Victorian Visit 22nd Sept-6th Oct '95

Together with several other Wildflower Society members, Elizabeth George and I had the delightful pleasure of attending the ASGAP Conference in Ballarat. The conference, including the day trips was most enjoyable and interesting. The highlight for me was meeting up again with Tony and so many other Study Group members. The 'Display and Sales' evening was very successful and, I hope, interesting from the point of view of visitors to our display. We signed up some new members and, thanks to the very generous donation of dryandra seedlings by Ray Purches, we also made some money from their sales. Thanks to everyone who helped with our display and welcome to the new members.

Elizabeth and I planned to have our own "Post Conference" tour to include members gardens and thanks to Tony Cavanagh, Barbara Buchanan and Elizabeth Brett we arranged our program during the Conference and purchased the necessary train tickets before leaving Ballarat. The week following the Conference was an outstanding success for us.

During the Conference week, a day tour to the Grampians included an all-too brief visit with many other participants, to the garden of Royce and Jeanne Raleigh at Wartook. I was overwhelmed by the number of magnificent dryandras there. I was constantly being called from one side to the other to look at various plants and, had we not planned to return there in three days time, as I jokingly said, I'd have been tempted to miss the bus 'accidentally on purpose!' I was heading in the direction of a large mounded plant in order to see which dryandra it was, when I was called to "come and see this red one!" It was a magnificent specimen of *D. idiogenes* ('It'), the lovely red and white flowers massed at the base of the upright leaves forming a neat, rounded plant- so much more attractive than those I'd seen in the wild. I saw this plant and several other species, for the first time in cultivation, during our trip. Other dryandras in flower and thriving in this wonderful garden were: *D. viscida*, *D. ferruginea* and several subspecies, *D. comosa*, *D. nobilis* var. *fragrans* and *D. lepidorhiza*, the latter just beginning to flower.

On the Saturday morning following the Conference Tony and Liz came up to Ballarat with their camper-van and we drove back up to the Grampians to spend the night there. The Native Plant exhibition was on at Pomonal so we spent some time there enthusing about the quality and variety of Western Australian flowers on display. Neil Marriott was on duty and we were delighted to see him again with the opportunity to discuss dryandras and verticordias that were there. We had been given permission to visit Neil's previous property at Stawell where the number and the flowering of the dryandras was also outstanding. Among the best we noted were: *D. nivea*, one of which had large all-yellow flowers, *D. borealis* (I believe this is one of Neil's favourites) *D. serratuloides* subsp. *perissa* and several others not in flower.

We had been told about Philip Vaughan's garden and nursery at Pomonal and on an all-too short visit late that afternoon was indeed an amazing experience. We found it difficult to think of any W.A. wildflower worth growing that he didn't have somewhere in this beautifully landscaped garden. Colourful shrubs were complemented by naturally-occurring grass trees in full flower. We were most impressed by the number of plants we consider difficult to grow, smokebushes (conospermums) of various species, for example. Philip is growing many verticordias, not quite so many dryandras but quite magnificent stands of *D. formosa*, *D. polycephala* and *D. quercifolia* (including pink forms) for cut flowers.

The following day we returned to the Raleighs to enjoy their hospitality and their garden at leisure. While I was waiting for the sun to be on one of three plants of *D. viscida* for a photograph, Royce suggested I photograph the 'the big one' instead. This turned out to be the plant I'd been heading for the previous Thursday. It was bigger, healthier and far more floriferous than any I'd seen in the wild. I'm sure the flowers are larger, too. We saw this species, with its lovely golden yellow flowers, in several gardens and it seems to thrive in Victoria. I haven't succeeded in growing this beauty yet. In this garden, as in all the ones we visited, *D. praemorsa* was in full flower. Many were pink forms of var *splendens*. This is undoubtedly one of, if not the most, hardy species and a great plant all round. Incidentally the floral arrangements, including the dining table vases, at the Conference featured many dryandras, as was pointed out to me proudly and frequently! *D. formosa*, *D. polycephala*, *D. praemorsa* and *D. quercifolia* (the latter two included pink forms), predominated.

After spending Sunday night at the Cavanaghs at Ocean Grove we left for Melbourne by train from Geelong, spent a couple of hours shopping there, then on to Benalla. We had time to relax during this enjoyable train trip.

Barbara Buchanan met us and drove us to Shepparton to visit David and Pam Shiells garden/nursery on the outskirts of the town. Once again we were thrilled to see so many magnificent plants, including many dryandras and verticordias. The property is quite large but the odour (I can't call it a 'scent'), of a *D. epimicta* in flower pervaded the garden. This was the first time I'd seen this species flowering in cultivation. Definitely one for a very large garden, as far from the house as possible! This dryandra has, to me, the worst smell of any Australian plant, with the possible exception of *Hakea rubriflora*, also blow-fly pollinated. *D. nobilis* var *fragrans*, on the other hand, has one of the most pleasant. *D. viscida* was also flowering well in the Shiell's garden.

Barbara showed us over her extensive plantings at Myrthee the following morning. She has succeeded in growing quite a few of the recently named dryandras including *D. anatona*. Stirling Range area plants should do well in that part of Victoria, not so far from the Victorian Alps.

The whole day was a delight. On our way to the NSW border, outside Wangaratta, Barbara took us to see Ray and Rose Purches' property. We were full of admiration for their garden and propagation success. Among others, Ray has grown numerous plants of *D. anatona* from cuttings. They also have plantations of dryandras for cut flowers. Ray told me that he was told that *D. hewardiana* was a good cut flower. As it is not one that I would recommend, I wondered whether it was because the commercial flower growers have a photograph of *D. stuposus* titled *Dryandra Hewardiana* on their poster depicting the flowers they are growing and the confusion has spread.

Just over the border and east of Corowa, we arrived at Elizabeth Brett's property. The garden is concentrated in a small area around the house and is beautifully laid out and maintained. Most of the established dryandras are the smaller-growing species but others from Elizabeth's latest seed-sowing are thriving in a newer part of the garden. In flower were *D. viscida*, *D. carlinoides*, *D. subulata* and *D. ferruginea subsp. tutanningensis* growing among other colourful shrubs of similar size. Among larger shrubs nearby, *D. megalotia* was flowering and, we were delighted to see a plant of *D. ionthocarpa* (Kamballup) doing well and with a mass of flower buds. I loved this garden. It is very photogenic.

Back over the Murray River and westwards we drove to David Randall's suburban garden at Cobram. Considering the list of dryandras that David has grown I imagined a much bigger garden. It's quite surprising how many plants will fit on an average block when large expanses of lawn are not planted. I was interested to see David's plant of *D. viscida* still doing well. Tony had sent me a photo of it when the Study Group visited and the plant first flowered. Once again Elizabeth and I were in raptures over, not only the dryandras and verticordias but also, as in all the gardens we visited, many other W. A. plants. Grevilleas, darwinias, and conospermums, among other genera are widely grown as grafted plants and it is very pleasing to see how much of this kind of work is being done and how plants and material are being shared among growers in Victoria.

After an early start to catch the train we arrived back in Melbourne where Tony met us to drive to Cranbourne. After lunch we set off from the picnic area on foot to the dryandra plantation. It was a pleasant walk made necessary by the danger of possibly spreading phytophthora on vehicle tyres. We wore plastic bags as overshoes on arrival at the dryandras which are now fenced as an extra protection. I had been warned by several people, including Tony about the devastation that has already occurred and, indeed, it is saddening. Large, mature plants which are mostly those last in the lines towards the base of the sandhill are dead. I was dismayed to see all the plants of *D. anatona* in the 'new' area are dead, but later we found an earlier planting surviving. The plants are all tall and have assumed their narrow habit of growth. Seedlings of many species are appearing around dead plants and when I counted the number of taxa surviving it was still impressive, despite the loss of individual plants. I was pleased to see *D. preissii* and *D. lepidorhiza* in flower.

The mystery plant which I thought, on seeing it at Cranbourne on my last visit was a hybrid, I am almost certain is *D. ferruginea subsp. tutanningensis*. It is much taller than plants in the wild. (Typical!). The same species had me baffled when I received a leaf from Lloyd Carman from a plant in a South Australian garden earlier this year and also when I first saw it in Victoria. The leaves differ from other subspecies of *D. ferruginea* (except for *subsp. pumila*) in having lobes that don't quite reach the mid-rib. The leaves can be quite narrow, as well, in *subsp. tutanningensis*.

It was surprising to see so many species in flower. Do dryandras in cultivation, in the eastern states have a longer flowering period than in the wild or have I been lucky in that whenever I visit, late-flowering species are early and vice-versa?

On our return to Ocean Grove we had another opportunity to have a good look through the Cavanagh's garden and to enjoy a day with Tony and Liz visiting the nearby coastal areas and a bush reserve with a planting of ... guess what? Dryandras! (and banksias). We also returned to Doug and Jan McKenzie's garden at Ocean Grove where we marvelled at the beds of grafted W. A. darwinias and Elizabeth had her best opportunity to see verticordias during our trip. Doug has a plant of *D. mucronulata subsp. retrorsa*. It doesn't set much seed, oddly enough. My plant from seed collected from a now extinct population, flowered for the first time earlier this year and is already setting seed.

After seeing so many dryandras growing so well in Victoria I'm pleased to be able to mention just a few successes of my own. My *D. arborea* has begun to set seed and a plant of *D. bipinnatifida subsp. multifida* had 8 inflorescences this year!

Elizabeth and I would like to thank all of you who made our trip so enjoyable with your generous hospitality and by sharing your wonderful gardens with us.

Margaret Pieroni
19th November 1995

REPORT ON DRYANDRA CULTIVATION SURVEY 1995

Many thanks to members who submitted lists of the dryandras they are currently cultivating. There were several new listings and some of these had in excess of 35 dryandras growing. Where possible I have allocated the new names resulting from Alex George's revision when people were able to record the old ASG numbers (see Margaret's article in this Newsletter for a complete coverage of names attached to these numbers).

All told there were records for 56 species (including varieties and subspecies) and a further 8 with various affinities. Due to changes that Alex made in the old 'nivea' complex where many former 'aff. niveas' finished up as 'lindleyana', it is likely that a number of the 'nivea' records are for other species. We hope that once we have published the illustrated key to all species that Margaret is preparing from Alex's key recently published in the journal *Nuytsia* (Vol 10, No. 3, 1996) and the dryandra book which is underway, it will be easier to recognise the many new species.

There were no real surprises and a number of the well known species scored well e.g. *D.calophylla* (6 records); *D.drummondii* (6 records); *D.fraseri* (7 records); *D.formosa* (6 records); *D.nobilis* and ssp. (7 records); *D.nivea* (6 records); *D.obtusa* (7 records); *D.praemorsa* (7 records); *D.tenuifolia* (6 records); while *D.plumosa*, *D.quercifolia*, *D.sessiles*, *D.speciosa*, *D.baxteri* and *D.nervosa* had 4 or 5 records.

Relatively few were growing such hardy species as *D.armata*, *D.cirsioides*, *D.conferta* and *D.longifolia*, although it was pleasing to see some of the endangered species such as *D.anatona* ('Cactus') in cultivation. Just on this last species, study group member Ray Purches has grown it from cuttings and I now have several healthy plants of various ages in the garden - it is unfortunately nearly extinct in the wild and the Cranbourne population has been reduced to a few plants in the last two years.

For nearly 40% of the species, there are no cultivation records although many are successful at Cranbourne. Please endeavour to grow a few of the less common species if you can to provide us with information. I am not aware that anyone has successfully grown *D.nana*, *D.concinna*, *D.horrída* and *D.preissii* even though they have been known for many years.

Rare and Endangered:

I received only a few lists for these vulnerable plants. I have only one record for *D.mimica*, *D.lepidorhiza* (no.41) and *D.epimicta* ('Kulin') in the garden, while several members are growing *D.ionthocarpa* ('Kamballup'), *D.anatona* and *D.ferruginea* subsp. *pumila*. I lost two plants of the delightfully-foliaged *D.montana* (No.12) which is very endangered with seed virtually unobtainable. I believe a plant is doing well in the special 'rare and endangered' bed at Kings Park. I would like more information from other members growing any of the rare and endangered species.

Tony Cavanagh

SPECIES NAMES AND NUMBERS FOR DRYANDRA IN THE ALEX GEORGE REVISION

<i>acanthopoda</i> ✓	11	<i>foliosissima</i> ✓ ⁽²⁾	38	<i>preissei</i> ✓	82
<i>anatona</i> ✓	32	<i>formosa</i> ✓✓	33	<i>proteoides</i> ✓	45
<i>arborea</i> ✓	5	<i>fraseri</i> ✓	23	<i>pseudoplumosa</i> ✓	70
<i>arctotidis</i> ✓	83	<i>fuscobractea</i>	3	<i>pteridifolia</i> ✓	49
<i>armata</i> ✓	4	<i>glauca</i> ✓	91	<i>pulchella</i> ✓	22
<i>aurantia</i>	55	<i>hewardiana</i> ✓	13	<i>purdieana</i>	8
<i>baxteri</i> ✓	37	<i>hirsuta</i> ✓	6	<i>quercifolia</i> ✓✓	31
<i>bipinnatifida</i> ✓	92	<i>horrida</i> ✓	63	<i>rufistylis</i>	80
<i>blechnifolia</i>	53	<i>ideogenes</i>	59	<i>sclerophylla</i>	24
<i>borealis</i> ✓✓	21	<i>ionthocarpa</i>	58	<i>seneciifolia</i> ✓	79
<i>brownii</i> ✓	88	<i>kippistiana</i> ✓	25	<i>serra</i> ✓	73
<i>calophylla</i> ✓	56	<i>lepidorhiza</i> ✓	57	<i>serratuloides</i> ✓	28
<i>carlinoides</i> ✓	26	<i>lindleyana</i> ✓ ^{x2}	87	<i>sessilis</i> ✓ ^{x3}	1
<i>catoglypta</i>	48	<i>longifolia</i> ✓	20	<i>shanklandiorum</i>	51
<i>cirsioides</i> ✓	10	<i>meganotia</i>	29 38	<i>shuttleworthiana</i> ✓	68
<i>columnaris</i>	77	<i>mimica</i> ✓✓	66	<i>speciosa</i> ✓	67
<i>comosa</i> ✓	39	<i>montana</i> ✓	71	<i>squarrosa</i> ✓	12
<i>concinna</i> ✓	72	<i>mucronulata</i> ✓✓	36	<i>stenoprion</i> ✓	85
<i>conferta</i> ✓✓	76	<i>nana</i> ✓	81	<i>stricta</i> ✓	16
<i>corvijuga</i>	43	<i>nervosa</i> ✓	52	<i>stuposa</i> ✓	35
<i>cuneata</i> ✓	2	<i>nivea</i> ✓✓✓	89	<i>subpinnatifida</i> ✓ ⁽¹⁾	19
<i>cynaroides</i> ✓	61	<i>nobilis</i> ✓	34	<i>subulata</i> ✓	60
<i>cypholoba</i>	86	<i>obtusa</i> ✓✓	41	<i>tenuifolia</i> ✓✓	40
<i>drummondii</i> ✓	46	<i>octotriginta</i>	47	<i>tortifolia</i>	84
<i>echinata</i> ✓	17	<i>pallida</i>	7	<i>tridentata</i> ✓	27
<i>epimicta</i> ✓	44	<i>platycarpa</i>	78	<i>trifontinalis</i> ✓	15
<i>erythrocephala</i> ✓	62	<i>plumosa</i> ✓	69	<i>vestita</i> ✓	64
<i>falcata</i> ✓	90	<i>polycephala</i> ✓✓	18	<i>viscida</i> ✓	65
<i>fasiculata</i>	75	<i>porrecta</i>	54	<i>wonganesis</i>	14
<i>ferruginea</i> ✓✓	42	<i>praemorsa</i> ✓ ^{x2}	30	<i>xylothemelia</i>	9
<i>fililoba</i>	50				
<i>foliolata</i> ✓✓	74				