

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

ACACIA STUDY GROUP NEWSLETTER No. 88

August 2003

Dear members

Now, at the beginning of August the wattle 'season' is well and truly with us in SE Qld. *A.leiocalyx* has finished flowering and *A.podalyriifolia* is starting to have more spent flowers than fresh ones but other species are taking over eg *A.concurrens* and *fimbriata*. The most eye catching species around Brisbane is *A.macradenia* as large golden balls of flowers weigh branches down almost to the ground. Its natural habitat is in dryer inland parts of SE Qld and unfortunately, as I have previously mentioned, it can become a weed in areas around Brisbane. However, it arouses so much interest in wattles that it is hard to condemn it out of hand. In a suburban situation it can't do too much harm but it needs to be watched. It has spread into Toohey Forest, an inner city reserve, where it hybridises with the local *A.fimbriata*. It was planted extensively along margins of this area some time back and this was a recipe for disaster considering it is such an adaptable species. On a recent drive along the SE Freeway I noticed that it is still cultivated along the verges. *A.concurrens* is flowering prolifically but as it has pale flowers in rods and as is very common it tends to be ignored.

Our local federal member up here puts out a news report at regular intervals and his latest has a front page article headed 'Spread our national floral emblem through Brisbane' overlying a photo of a wattle. This seems a great idea as a free brochure and seeds are on offer. I phoned the Electoral Office and asked which species is being distributed. Unfortunately it is *A.pycnantha* which just does not grow in Brisbane or its surrounds – it hates the climate. The seed had been sent from the south where it obviously flourishes and it is our floral emblem. However, if inappropriate seed is distributed there will be many disappointed people. It would be a service to the cause of acacias if members could keep an eye out for a similar situation in other areas.

## Feedback

Don Perrin's pamphlet 'Irritation of the Irrational' which was included in the last newsletter has produced a quantity of feedback and some of this is included below.

Don Perrin's latest letter from the Qld Government follows

Dear Mr Perrin

Thank you for your letter dated 28 April 2003, regarding wattle pollen as a cause of allergic reactions in some people.

The following information has been provided by The Australasian Society of Clinical Immunology and Allergy (ASCIA). The Society advises that pollen from grasses, weeds or trees can trigger symptoms of hay fever (allergic rhinitis) and asthma in sensitive people. Pollen seasons can last for several months and exposure is difficult to avoid.

Some plants (such as flowering plants, including wattle) produce small amounts of pollen, which are distributed by birds and bees from one plant to another. Other plants (such as pasture grasses and weeds) rely on wind to disperse their microscopic pollens, which are produced in vast quantities, are blown long distances and can cause allergies in people.

Certain flowering trees and shrubs, including wattle, jacaranda, jasmine, pine trees, eucalypts and tibouchina, are frequently blamed for inducing hay fever symptoms, but do so primarily through

chemical (perfume) hypersensitivity and perhaps, in some people, through truly allergic reactivity. In addition, since wattle pollens are not wind-blown any great distance from the tree, it is likely that they would pose a problem only in the immediate vicinity for people who are sensitive to this trigger.

Information about common allergy causing plants in Australia can be accessed via the ASCI website 'pollen calendar contents web page' which is at:

<http://www.allergy.org.au/month/pollen.htm>

Another useful website is:

[http://www.allergy.org.au/aer/infobulletins/pollen\\_allergy.htm](http://www.allergy.org.au/aer/infobulletins/pollen_allergy.htm)

Thank you for bringing this matter to my attention and I trust this information is of assistance.

Yours sincerely

**Wendy Edmond MP**  
**Minister for Health and**  
**Minister Assisting the Premier on Women's Policy**  
*The second website is particularly interesting.*

**Margaret Moir**, Margaret River, WA wrote

My personal experience was growing up on the WA Goldfields with its wealth of wattles, and my mother assuring me that her hay fever, and mine (very severe indeed) was caused by the wattles. As an adult I had the tests, and dust mites and mould were the culprits. I have discarded my woollen blankets etc, and now enjoy a garden full of wattles, even in the house, with not a worry in the world. To think that I spent almost 50 years in a wattle-less world.

Wattles are often blamed for triggering hay fever, but it seems they may have been unfairly maligned. A Canberra study found that pollen density ranges from three grains per cubic metre of air in July up to 17 in October. By contrast, pollen from grass can reach densities of up to 200 grains per cubic metre. Exotic trees such as elm, ash and oak also produce much larger amounts of pollen than wattle.

Few people tested directly with pollen grains have a significant reaction. Pollen grains are much larger than grass grains and tend to fall straight to the ground below the tree, rather than blow around in the wind and get up peoples' noses. The strong scent of some wattles, however, can create an illusion of an allergic reaction in some people sensitive to pollen.

*Margaret also sent the text of emails from a discussion group 'Australian Plants' dealing with wattles and allergies. Some of this is quoted below.*

**Leonie Farrugia** of [clpfarr@tgp.com.au](mailto:clpfarr@tgp.com.au)  
drew attention to the Asthma NSW website.

*(My comments) This site shows the degree of misinformation circulating as it has contradictory information regarding wattles. Under the heading 'Pollen and Asthma Control' they advise that you 'Plant insect pollinated or low pollinating plants and grasses around your home'. Then under the heading 'The Low Allergy Garden' the following comments are made. Pollens are produced by plants for fertilisation. Some pollens travel through the air in order to fertilise other plants while other pollens are carried by insects from plant to plant. It is the airborne pollens that mostly affect and cause allergy. The grass pollens (eg Rye, Couch, Veldt, Barley, Oats) are the most potent trigger for asthma and hay fever but certain weeds (Patterson's Curse, Pellitory, Ragweed) and bushes/trees (eg birch, eucalyptus, **wattles** (my emphasis), Japanese Pepper and pine trees) can also present a problem.*

*It is well known that wattles have heavy pollen and are insect pollinated and this is the type of plant that is recommended in the first quote. In the second, wattles are a problem.*

*From Margaret Moir's email discussion I quote **Dr David Lightfoot**.*

There are virtually no documented true cases of wattles causing allergies including hay fever. It's all just circumstantial as the grass pollens are about at the same time. Wattle pollen is in general non-allergenic. Asthma NSW is wrong. They have in the past been approached about their wattle discrimination. APS NSW asked for their evidence. There is none.

## **From members letters and emails**

From **Dawn Barr**, President of the Bairnsdale Vic APS (not a member of the ASG)

Dawn's Group is holding an acacia study night and she also wrote

At the moment (16<sup>th</sup> June) in our garden we have *A. pycnantha* and *A. vestita* in full flower. *A. floribunda* is just starting and *A. drummondii* is loaded with buds but I am never sure about this one. It tends to be a 'drop dead' variety here even though our climate is almost Mediterranean type with a very mild winter. Still I persevere as it is such a lovely little wattle. I also have *A. aphylla* in bloom. What a delightful plant such unusual foliage. It seems to love the dry sunny spot it lives in and as it is right near our front gate it attracts quite a bit of interest.

**Pat Barry**, Brackenridge in Qld

I think it is disappointing to see how seldom the Brisbane City Council uses acacias in their revegetation projects. They too seem to be worried adverse reactions from local residents and also have this strange reasoning 'they will take over'! Still a lot of ignorance about the blessings of acacias, not only for their visual beauty but their place in natural biodiversity.

**Brendon Stahl**, Birregurra, Vic

Some exciting news of the discovery of another red wattle, in the White Cliffs area of NSW, by one of our Colac/Otway members. It was an *Acacia tetragonophylla*.

I have been busy with propagation by seed and have done some experimenting with the medium used. In the booklet produced by the previous Acacia Study Group leader, Bruce Clark entitled "Wattles are Golden", there was reference to using vermiculite as a propagation medium. I have used vermiculite with good success as well as other mediums such as normal propagating mix (3 parts sand to one part peat moss), ordinary potting mix, seed raising mix, and scoria fines (only 50% success rate for the scoria fines).

Currently I have 40 acacias species flowering this month out of my present number of 130 Acacia species.

**Margaret Moir**, Margaret River, WA

As a dedicated landcare/revegetation advocate of many years standing I can't emphasize enough to people the essential role that wattles play in ecology and natural systems. We have to fight the anti-wattle prejudice like mad, they have no substitute ...as pioneers, for nitrogen fixing and shelter, as mycorrhizal allies and especially for the insects, which we know they attract so amazingly. A group of wattles in bloom is a magnet for insectivorous birds. Walking amongst some yesterday I saw

Golden Whistlers, Fantails, Wrens, Thornbills, Silvereyes and Cuckoo Shrikes all hawking for tucker. And all in a small patch of 10 *A.floribunda* in partial flower!

I thought you may be interested in this from the ABC. An excellent article on wattles, although sadly lacking in the 'what is flowering now' department.

<http://www.abc.net.au/science/scribblygum/july2003/default.htm>

**Marion Simmons**, Legana, Tas

I refer to **Newsletter No 85** - The comments regarding wattles (or other plants for that matter) becoming weeds in some States is no doubt an increasing problem. The article in 'Gardening Australia' does not portray the entire picture and cannot apply to Australia as a whole. In Tasmania for instance a few Acacias are listed as 'naturalised' and some are reported to be invading bushland but the number of exotic species like Spanish Heath, Crack Willow, Boneseed, several species of Broom to name a few which have become serious problems is far greater.

*Acacia beckleri* - On checking our records I found that this was at one time considered to be *A gladiiformis* but there is no mention of the existence of a variety in the latest published work. We were growing one plant for many years but it died in last year's very dry period.

*A conferta* - I was wondering if you are sure that the plant in the close-up is actually *A conferta*. It looks some what prickly leaved in the photo and when I compared this with our slides and dried specimens the photographed plant's phyllodes looked thicker and held themselves quite differently from those we have had identified as *A conferta*.

With regard to the identity of the illustrated *Ac. ?leptospermoides* I wondered if it could be ssp *obovata* although this is recorded to only occur in the Murchison River area. Only ssp *leptospermoides* is recorded from the Wongan Hills area.

**Newsletter No 86** - I think that most Acacia growers and interested others would prefer that our Australian Acacias retain their present name although it is obvious that the genus will be split up over time. However we can only hope that Bruce Maslin and the other involved botanists are able to argue successfully for the retention of the name Acacia for the majority of our wattles.

**Newsletter No 87** Jeff Irons mentioned *A obliquinervia* which prompts me to mention that we have found seedlings of this species coming up in the garden although the parent is gone. Not too many only three or four; not like *A iteaphylla* which germinates everywhere in the garden.

Our Acacias are bursting into flower and just as we are about to leave on a trip. We always seem to miss the best of their display!

## **ACACIA CARNEORUM -A Threatened Species**

by Marion Simmins

While on an Acacia collecting trip a couple of years ago John and I were fortunate enough to meet David Lord of 'Thackaringa' Station` near Broken Hill. We had been looking for *Acacia carnei* (as it was known then) for some years without success. We were directed to David by a report we had read and after ringing him he invited us out to the property and there of course were these illusive Acacias. We took a lot of photographs and were able to collect some specimens, one in flower.

,*Acacia carneorum* is usually a bushy shrub or small tree to about 4 m tall with pungent rigid dark green phyllodes. It has large bright yellow ball flowers about 14-15 mm diameter which may be present in autumn winter or spring depending on rainfall. It occurs on sand dunes, level sandy sites or on shallow limey soils along watercourses. It is limited in distribution occurring in the Broken Hill region of western NSW and adjacent pastoral zone of north-east South Australia.

Seed pods are rarely found: even though we searched for ages we were not able to locate any sign of them. Vegetative suckers are common but are lost to rabbit grazing. Rabbits not only prevent regeneration by eating the emerging suckers but actively build warrens under adult plants causing their collapse and subsequent death. Thousands of warrens have been ripped out in an effort to control rabbit numbers. It was estimated that there were about 26,000 warrens on the property.

David after having witnessed major regeneration of many native plants after Rabbit Calicivirus Disease arrived in the district in 1995 formed the opinion that the effects of rabbits on the Australian environment had been grossly under-stated. To demonstrate his theory in August 1998 he established three trial plots of approximately one hectare each in three different sites on the property, each placed around mature stands of *A carneorum*; the trees were believed to be between 180-300 years old.

Although three sites had been selected we saw only one trial site near the house. We were told that each site had a control plot:

Site No 1 was open to all grazing animals including rabbits, kangaroos, sheep and cattle.

Site No 2 was partially enclosed with appropriate open meshed fencing and grazed only by rabbits.

Site No 3 was fenced so that it totally excluded all grazing.

Prior to fencing no suckers were recorded at any site but after three weeks of the trial a substantial number of suckers had appeared in No 3 plot. All trial plots were monitored at six and twelve monthly intervals and all suckers were counted and mapped. At twelve months the percentage increase in sucker development was significantly greater in the totally excluded area than in the other two. It has been clearly shown by these trials that even at low numbers rabbits are able to prevent recruitment of *A carneorum* and as this species relies mostly on suckers for regeneration it is clearly at risk.

David advocated that further bio-diversity studies and research into other biological agents to further suppress rabbit populations be undertaken, while at the same time sustained efforts with existing methods of control be continued to reduce rabbit population while it is under stress from Myxomatosis and Calicivirus Disease.

Reference: With his permission information has been taken from David Lord's published results "The Impact of Rabbit Grazing on the Sucker Recruitment of the Threatened Species Purple-Wood Wattle (*Acacia carnei*).

## Black and White Photos

### Pl 1 to 5 Life cycle of *Jalmenis daemeli* ( Family Lycaenidae – Blues, Coppers, Hairstreaks, Metalmarks)

Larvae of many species of this family are associated with ants. According to 'Butterflies of Australia' by M.F.Braby, a particular feature of lycaenid larvae is that they have specialised secretory organs or glands that attract, appease and reward ants. This works so well that in some species the butterfly larvae actually eat the ant larvae/pupae without repercussions or are fed by the ants. The *J.daemeli* larvae shown here are protected by a species of *Iridomyrmex* ant. Just touching a branch brings a horde of very busy ants swarming onto your hand. Often the ant's attention is shared with a variety of other insects using a similar strategy to gain protection. Most commonly in this case mealy bugs and leafhoppers were present. Actually it was rare to find larvae on their own with the ants. They are, however, not dependant on the ants and they survived well when transferred to an insect rearing cage.

The host plants at Booie were *A.glaucocarpa* and *A.leiocalyx*.

**Pl 1 & 2** A case of spot the caterpillar which varies in colour from green to green with brown markings. When mature they are about 22mm long.

**Pl 1** The green caterpillar is well camouflaged and partially hidden by the host's leaves. It appears to be a thickening of the twig it rests on. It has two ants standing on it and two leaf hoppers below.

**Pl 2** This caterpillar is more obvious with its brown markings. It is attended by a number of ants and shares their attention with small mealy bugs.

**Pl 3** Pupa of *J.daemeli*. These varied in colour from pale fawn to dark brown.

**Pl 4** Adult *J.daemeli*. Lower surface of wings. The basic colour is pale fawn with slightly darker markings. There are two prominent orange circled black spots at the hind edge of the back wings with paler spots in between. A short tail on the hind margin is also black.

**Pl 5** Pinned specimen of *J.daemeli*. The upper surfaces of the wings have a broad brown band around the edge with a blue or blue/green central area. Males and females are similar. The largest adult raised had a wing span of just over 3cm.

This species is confined to central eastern areas of Qld but other species of *Jalmenus* can be found in all states but Tasmania. There could be some eating your wattles.

**Pl 6** This is a photo of one of the controls on leaf eating caterpillars. It shows the remains of a hairy caterpillar which was feeding on *A.leiocalyx*. A tiny wasp had laid eggs in the caterpillar and the larvae which hatched ate out its interior. They then burst through the caterpillar's skin to pupate in the white cocoons which surround the remains of the host. Very little of the caterpillar remains – just a 2cm strip of skin.. To add a twist to the story the wasps which hatched from the pupae were not the originals. The originals had been parasitised in their turn by another micro wasp.

Primary parasite – a microgastrine braconid wasp

Secondary parasite – an elasmid wasp, *Pediobius elasmii*

**Pl 7** This is a large weevil over 2cm long. It is very conspicuous with its blue/green and black colouring. It occurs in the eastern states and SA and was first collected at Botany Bay by Joseph Banks. The adult chews strips from the surface of phyllodes but the larva is a borer in the stem and roots of acacias. I have seen the adult on *A.concurrens*, *disparima* and *leiocalyx* but the list of host plants is no doubt much longer. Diamond or Botany Bay weevil – *Chrysolopus spectabilis*

My thanks to the Queensland Museum for assistance with the identification of insects.



## Coloured plates

### *Acacia leucoxyla* subsp *argentifolia* (Plates 1 & 2)

According to the 'Wattle' disc this species can grow to be anything from a 2.5m shrub to a 20m tree. It has silvery or grey green, true leaves with very small pinnules – only 2 to 4mm in plants near Kingaroy. The flowers are golden yellow and in balls, often with over 35 balls well spread out on a 150mm stalk. The perfume is very faint. Flowering is at its height in early August this year.

This subspecies occurs in SE Qld and is common near Kingaroy on fertile red soil where it is typically a large shrub with some suckering. Cultivated plants at Booie, near Kingaroy, on shallow, sandy soil are about 5m after 4-5 years but have suckered extensively – 45 suckers from 3 plants. They have not been affected by drought and are frost hardy. Kingaroy has recently experienced temperatures of –4 degrees or less without detriment to small plants.

According to the ASG archives *A.leucoxyla* subsp *argentifolia* (previously *argentea*) has been grown successfully in clay as well clay loam and as far south as Shepparton, Vic. Flowering is not mentioned.

The plant shown is growing near the roadside in a drainage ditch. At this time the ditch was full of water a situation which is obviously tolerated. The dark patch of foliage near the center of the plant is a mistletoe. This specimen has a good spread of flowers probably because it is growing in the open. It is more usual for the flowers to be confined to the upper branches.

This is a very attractive species but it does need room and be prepared for suckering.

### *Acacia semilunata* (Plates 3 & 4)

Another large shrub, said to grow up to 5m. The phyllodes are shaped like a half moon (hence the Latin name) and have an attractive grey-green or silvery colour. The flowers are golden yellow and strongly perfumed. They are in balls with up to 20 balls crowded on a relatively short axis up to 5cm long. Peak flowering is in late July/early August this year.

This species occurs in SE Qld mainly on the Darling Downs where it is said to grow in sandy or light clay soil. It is a very tough plant and has coped with drought and frost in the very shallow soil at Booie.

There are only a three records of the cultivation of this species away from its habitat in the ASG archives. Two are from Qld. One mentions that it flowers well in a very dry spot and the other that it is a traffic stopper. One record from Tas. mentions that it flowers very well. This is a fast growing and striking plant, attractive even when it is not in flower.

### *Acacia macradenia* Zig-zag Wattle (Plates 5 & 6)

This is one of the most outstanding acacias when it is in flower and never fails to draw comment. Out of flower it is rather ordinary with fairly long, slender, curved, green phyllodes on weeping zig-zag branches. It may grow to 5m and I have seen specimens with a trunk over 20cm in diameter. These were plants over 15 years old which is an exceptional age locally. Most are short lived and lucky to reach 10 years before the borers do their job. On the positive side, the species is very fast growing and often flowers when less than a metre high.

Flowers are prolific in large, golden, perfumed balls which weigh the branches to the ground. As mentioned above this species occurs in inland SE Qld but has become naturalised in more coastal areas. It is very drought hardy and has coped with frost down to –5 degrees

It occurs naturally on stony or rocky soil often near creeks. In the ASG archives it has grown well on sandstone, clay loam and black soil but has not done well on clay or alluvial loam. A 15/20 year old plant did not flower in Tasmania.

It copes well with the shallow soil at Booie but flowering is affected by severe drought. After 10 years of growing a dozen or so plants no seedlings have appeared so it is unlikely to become a weed in that area.





## ASGAP Acacia Study Group Financial Balance Sheet 2002-2003

The finances of the group remain almost static with a slight increase in funds in the bank over last year's total. This is in spite of an increase in the cost of photocopying and postage and is the result of more members electing to receive their newsletters by email. The cost of colour photocopying has increased as the very cheap company we were using has closed and a colour copy is now \$1.10 when it was formerly 70c per A4 sheet.

Income	
Balance at 30-6-2002	\$753.04
Income from fees and donations	446.30
<b>Total</b>	<b>\$1191.34</b>
Expenses	
Postage, envelopes etc	\$106.00
Toner / ink for printers	\$ 76.50
Photocopying (including colour)	\$221
Seed	\$24
<b>Total</b>	<b>\$427.50</b>
<b>Bank Balance at 30-6-03</b>	<b>\$763.84</b>

### Photo Library

The missing slides belonging to the ASG have turned up. Also June Rogers has sent over 200 slides of acacias from her late husband's collection. Many thanks to June for this terrific boost to the photo library. Hopefully these can be scanned during the next month or so. I hope to use these photos in future newsletters.

### Membership

Welcome to new members

**Annabella Greenup** of bilby. [blooms@tpg.com.au](mailto:blooms@tpg.com.au)

**Jean Mott**, PO Box 114, Glen Innis 2370

**John Nevin**, 126 O'Dell Street, Armidale

**Caboolture Daytime Group** at [heisler@caboolture.hotkey.net.au](mailto:heisler@caboolture.hotkey.net.au)

also

**Jack Fahy** of [wattlejf@bigpond.com](mailto:wattlejf@bigpond.com)

Jack is president of Wattle Day Assn. Inc. and is an honorary member. Jack wrote - We are a group who are simply trying to celebrate/ appreciate 'being Australian' on Wattle Day. Our forms of celebrating are all drawn from the Wattle. Further info is on our web page

[www.wattleday.asn.au](http://www.wattleday.asn.au)

**Dawn Parsloe** and **Winifred Bennet** have written to let me know that they are retiring from the ASG. This courtesy is much appreciated.

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## ACACIA STUDY GROUP SEED LIST AUGUST 2003

18 packets maximum in each order (negotiable). Limit of 3 orders per member per year. Please include a 230 x 100mm stamped addressed envelope for orders of 12 or fewer packets where only a small number of seeds are required (6 or less per packet).

For orders of over 12 packets or where a larger number of seeds are required please include \$1.65 in stamps to cover the cost of a padded post bag and postage.

The numbers after the names indicate the year in which the seed was collected if it is known.

- |                            |                               |   |
|----------------------------|-------------------------------|---|
| acanthoclada pre 01        | bakleyi                       | continua 82                             |
| acinacea                   | bancroftiorum 01              | coolgardiensis pre 94                   |
| acradenia pre 83           | barattensis                   | coriacea 90                             |
| aculeatissima 81           | barrintonensis 79             | <i>coriacea var sericophylla pre 01</i> |
| acuminata 78               | baueriana                     | covenyi pre 96                          |
| adenophora                 | <i>baxteri pre 01</i>         | cowleana 82                             |
| adsurgens 81               | <i>beauverdiana pre 01</i>    | craspedocarpa 01                        |
| adunca 83                  | beckleri 82                   | crassa                                  |
| aestivalis 90              | betchei                       | crassicarpa 78                          |
| aff beauverdiana           | bidwillii 83                  | crassiuscula 79                         |
| aff boormanii 84           | biflora                       | crassuloides pre 85                     |
| aff coolgardiensis         | binata 80                     | cretata 85                              |
| aff desertorum pre 79      | binervata 83                  | cultriformis 01                         |
| aff ericifolia Pre 85      | binervia 78                   | <i>cupularis decora pre 01</i>          |
| aff longifolia pre 79      | bivenosa pre 86               | curranii                                |
| aff microcarpa pre 73      | blakei 86                     | curvata 73                              |
| aff multispicata pre 89    | blakelyi                      | curvinervia 81                          |
| aff myrtifolia pre 85      | boormanii 91                  | cuthbertsonii 71                        |
| alata pre 77               | brachybotrya pre 84           | cyclops 78                              |
| alcockii pre 01            | brachystachya                 | cyperophylla pre 00                     |
| alleniana pre 01           | brevifolia 01                 |   |
| amblygona 81               | brassii 81                    | dawsonii                                |
| amoena                     | browniana 81                  | dealbata 80                             |
| ampliceps pre 83           | browniana v intermedia 80     | deanei pre 83                           |
| anatriceps 85              | brunioides 87                 | debilis 78                              |
| anceps 82                  | burkittii                     | declinata prostrate pre 90              |
| ancistrocarpa 81           | burrowii 84                   | decora                                  |
| andrewsii 01               | buxifolia 82                  | decurrans pre 81                        |
| aneura 71                  | bynoeana 84                   | <i>deficiens pre 01</i>                 |
| aneura v macrocarpa pre 98 |                               | deflexa pre 90                          |
| angusta 84                 | caerulescens (Buchan Blue) 90 | delphina 79                             |
| anthochaeta pre 94         | caesiella 84                  | <i>demissa pre 01</i>                   |
| aphylla 89                 | calamifolia pre 82            | dempsteri                               |
| <i>applanata pre 01</i>    | calantha 87                   | denticulosa 86                          |
| aprepta 81                 | calyculata 87                 | dentifera                               |
| araneosa 90                | <i>cambagei pre 01</i>        | dictyoneura pre 89                      |
| argyraea 85                | <i>camptoclada pre 01</i>     | dictyophleba                            |
| argyrophylla 79            | cana pre 89                   | dielsii pre 85                          |
| arida 82                   | cardiophylla 82               | dietrichiana 90                         |
| arrecta pre 90             | caroleae 84                   | difficilis                              |
| ashbyae pre 82             | celastrifolia                 | difformis pre 96                        |
| aspera 78                  | cheelii 78                    | dimidiata pre 01                        |
| assimilis 94               | chinchillensis 91             | <i>diphylla 01</i>                      |
| atkinsiana                 | chisholmii 90                 | <i>disparrima 03</i>                    |
| attenuata 85               | chrysellia pre 84             | divergens 78                            |
| aulacocarpa 85             | chrysocephala 80              | dodonaeifolia 71                        |
| <i>aulacophylla pre 01</i> | cincinnata pre 81             | donaldsonii pre 84                      |
| auriculiformis 01          | citrinoviridis pre 81         | doratoxylon 01                          |
| ausfeldii 82               | clunes-rossei pre 86          | drapanocarpa pre 80                     |
| axillaris 92               | cochlearis 83                 | drewiana 82                             |
|                            | cognata pre 84                | drummondii dwarf pre 79                 |
| baeuerlenii 79             | colei pre 94                  | drummondii ssp affinis pre 83           |
| baileyana 98               | colletioides                  | drummondii ssp candolleana pre 84       |
| baileyana aurea            | cometes                       | drummondii ssp drummondii pre 89        |
| baileyana prostrate 88     | complanata 84                 | drummondii ssp elegans                  |
| baileyana purpurea 99      | concurrans 01                 | drummondii ssp grossus pre 83           |
| bakeri                     | conferta 01                   | dunnii 85                               |

elata  
 elongata 78  
 empelioclada pre 82  
*enervia ssp explicata pre 01*  
 enterocarpa 83  
 ephedroides pre 82  
 eremaea pre 81  
 eremophila pre 85  
 ericifolia  
 erinacei pre 88  
 eriopoda pre 88  
 estrophiolata 93  
 euthycarpa  
 everistii pre 90  
 excelsa pre 90  
 exilis pre 82  
 exocarpoides  
 extensa 80  
  
 falcata 01  
 falciformis 84  
 farinosa pre 84  
 fasciculifera 85  
 fauntleroyi 81  
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